NAVAL TECHNICAL TRAINING COMMAND

STUDENTS GUIDE

for

SH-2F AUTOMATIC STABILATION EQUIPMENT

ORGANIZATIONAL MAINTENANCE COURSE

SECTION I (INFORMATION SHEETS)
SECTION IV (DIAGRAMS)

C-602-3386

CNTT N6353D (6-81)

NAVAL AIR MAINTENANCE TRAINING GROUP

For Training Purposes Only

NAVAL AIR MAINTENANCE TRAINING GROUP

STUDENT'S GUIDE

FOR

SH-2F AUTOMATIC STABILIZATION EQUIPMENT
ORGANIZATION MAINTENANCE COURSE

C-602-3386

SECTION I (INFORMATION SHEETS)

SECTION IV (DIAGRAMS)

DATE: JU

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"Information sheets not in this course."

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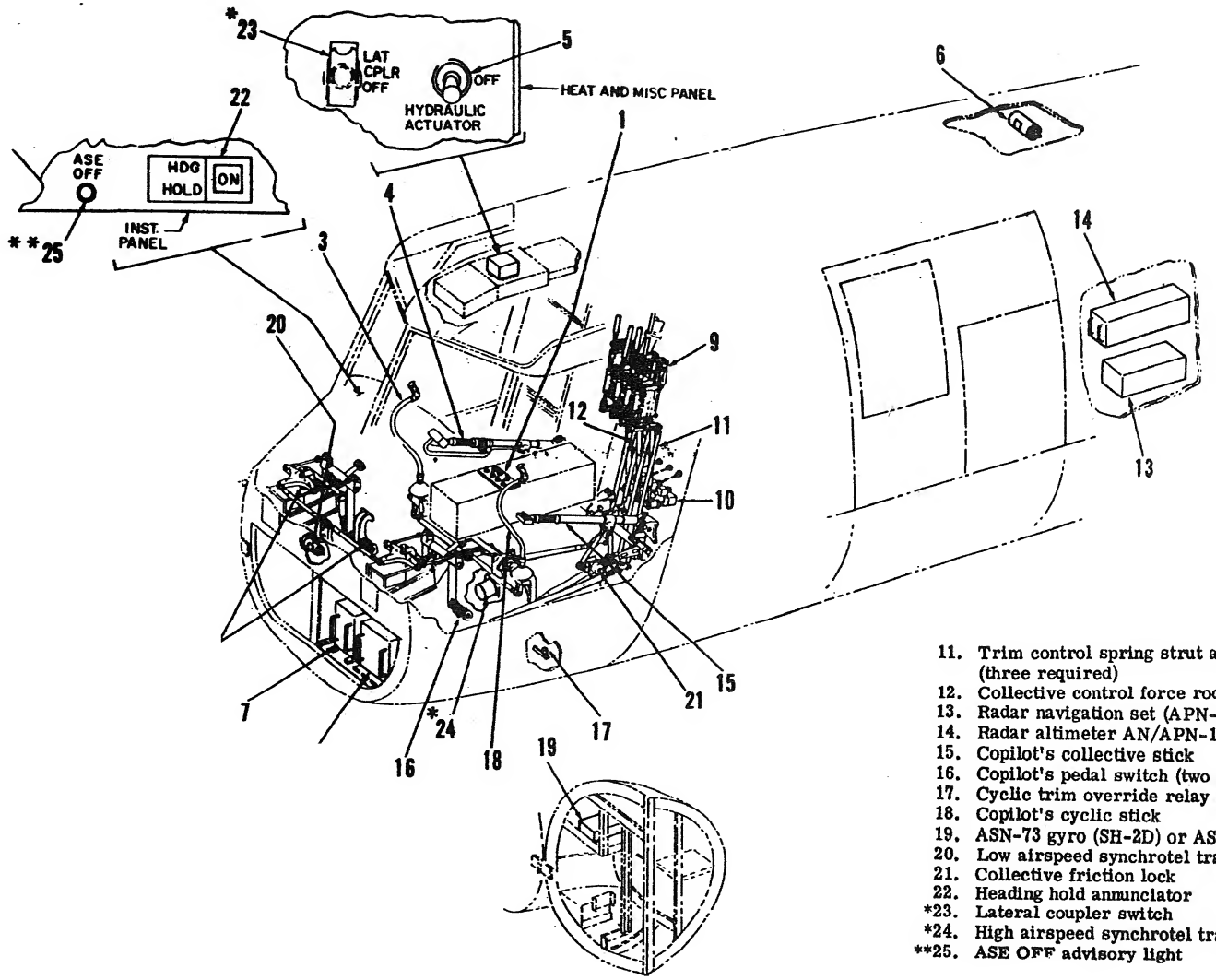
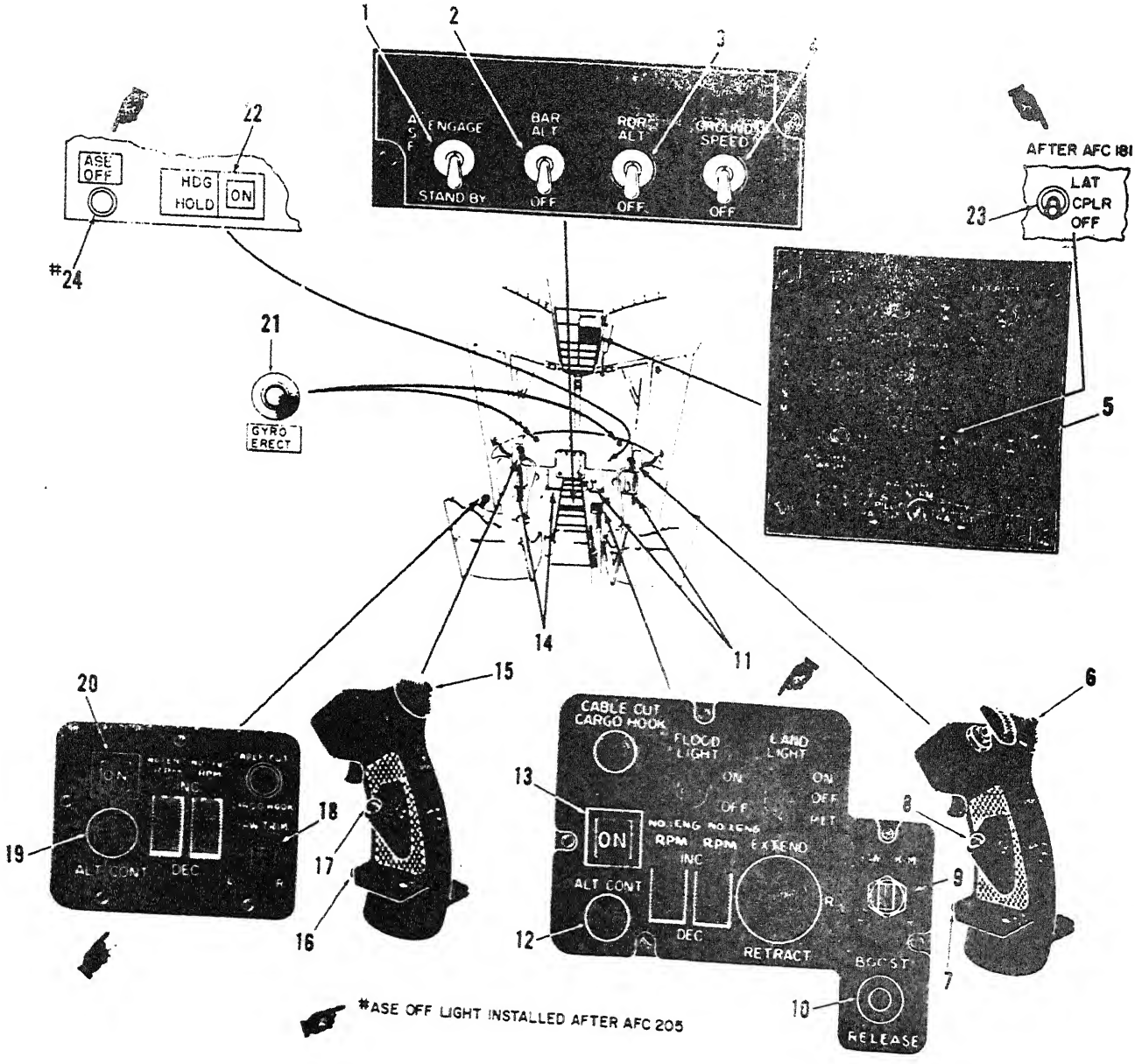


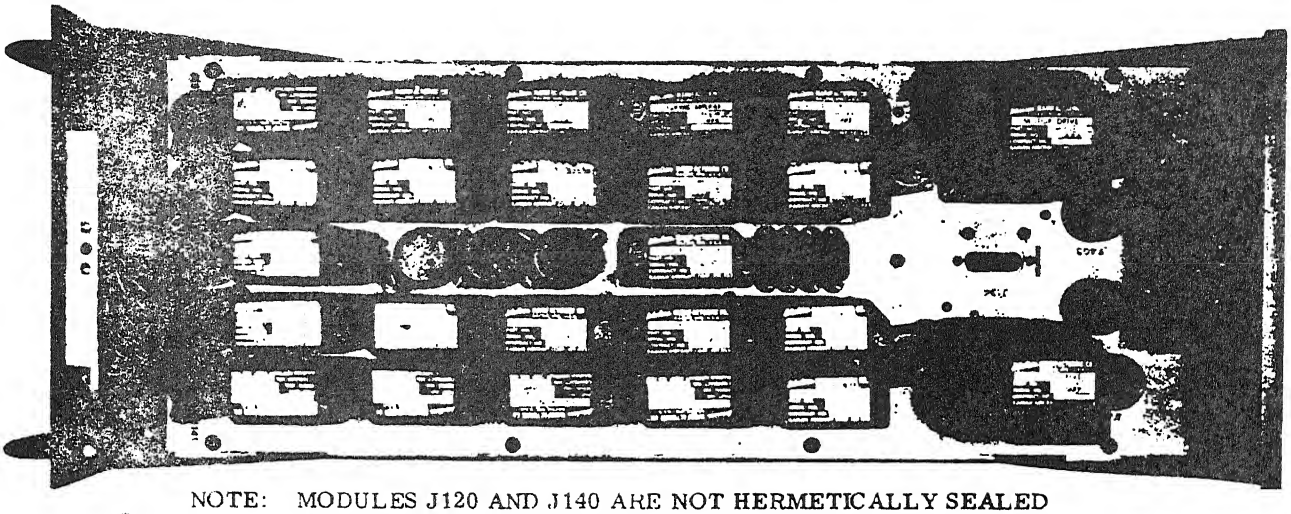
11. Trim control spring strut assembly (three required)
12. Collective control force rod assembly
13. Radar navigation set (APN-182(V)
14. Radar altimeter AN/APN-171
15. Copilot's collective stick
16. Copilot's pedal switch (two required)
17. Cyclic trim override relay and resistors
18. Copilot's cyclic stick
19. ASN-73 gyro (SH-2D) or ASN-50 (SH-2F)
20. Low airspeed synchrotel transmitter
21. Collective friction lock
22. Heading hold annunciator
*23. Lateral coupler switch
*24. High airspeed synchrotel transmitter
**25. ASE OFF advisory light

mponent Location SH-2D/SH-2F



1. ASE control switch
2. Barometric altitude control switch
3. Radar altitude control switch
4. Groundspeed control switch
5. Hydraulic actuator switch
6. Pilot's cyclic trim switch
7. Pilot's ASE disengage button
8. Pilot's coordinated turn button
9. Pilot's yaw trim switch
10. Boost release switch
11. Pilot's heading disengage switches
12. Pilot's altitude control button
13. Pilot's altitude control annunciator
14. Copilot's heading disengage switches
15. Copilot's cyclic trim switch
16. Copilot's ASE disengage button
17. Copilot's coordinated turn button
18. Copilot's yaw trim switch
19. Copilot's altitude control button
20. Copilot's altitude control annunciator
21. Gyro quick-erect button
22. Heading hold annunciator
23. Lateral coupler switch
24. ASE - OFF light (After AFC 205)

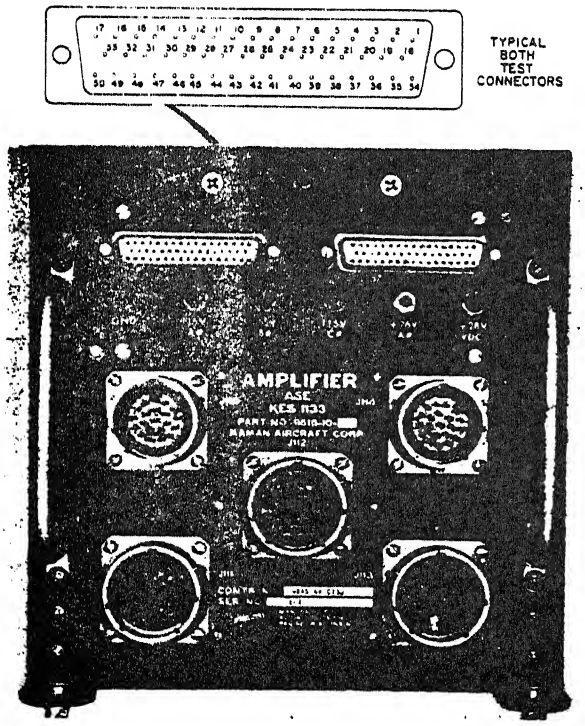
ASE - Operating Controls



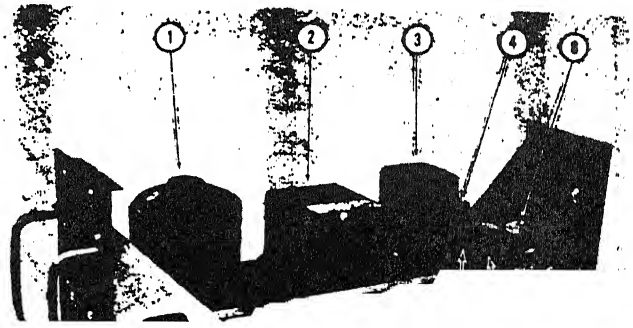
NOTE: MODULES J120 AND J140 ARE NOT HERMETICALLY SEALED IN THE STABILIZATION AMPLIFIER. SEE FIGURES 2-42 AND 2-44.

*MODULE J134 ADDED TO ASE AMPLIFIERS INC. AFC 181 (101 ROTOR SYSTEM). THIS MODULE IS NOT HERMETICALLY SEALED (REFER TO FIGURE 2-44A).

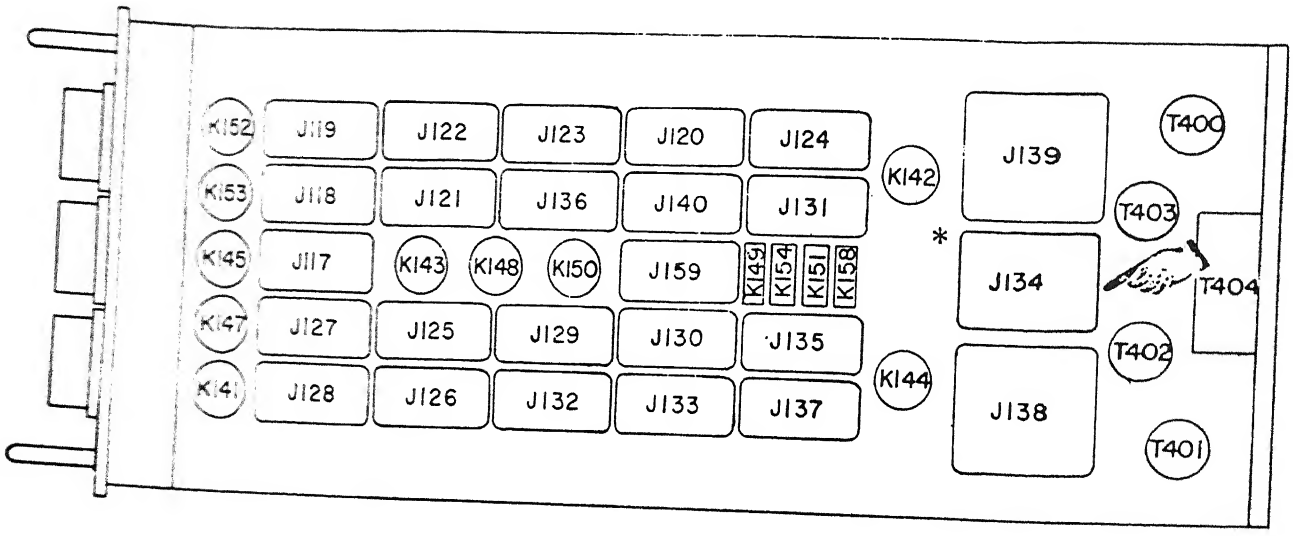
Stabilization Amplifier - Cover Removed



Stabilization Amplifier - Front Panel

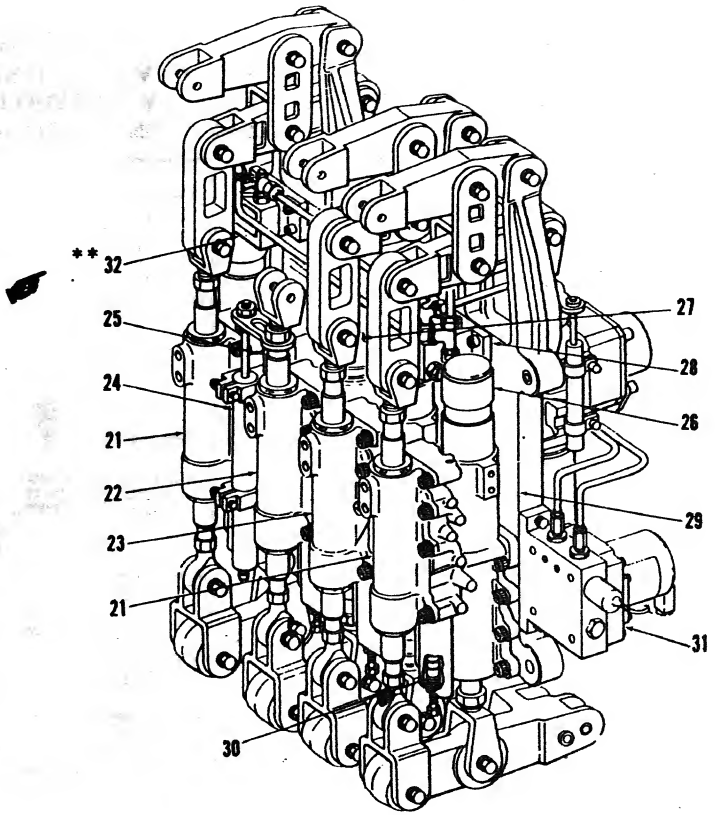


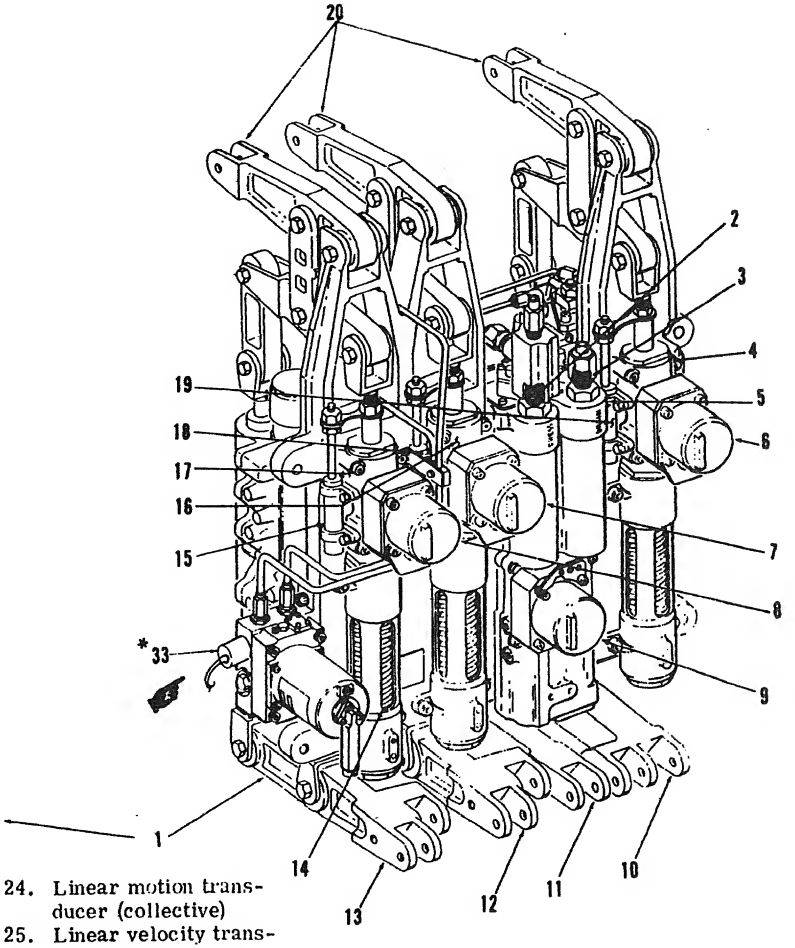
Stabilization Amplifier - Component Identification



Key

J117 BAR ALT synchronizer amplifier (for altitude controller)
J118 BAR ALT synchronizer amplifier
J119 BAR ALT synchronizer
J120 Summing network (pitch-collective)
J121 RDR ALT synchronizer amplifier
J122 RDR ALT synchronizer
J123 Demodulator amplifier (collective)
J124 Demodulator amplifier (pitch)
J125 Synchronizer amplifer (pitch)
J126 Synchronizer (pitch)
J127 Synchronizer amplifier (pitch groundspeed)
J128 Synchronizer (pitch groundspeed)
J129 Synchronizer amplifier (roll)
J130 Synchronizer amplifier (roll groundspeed)
J131 Demodulator amplifier (roll)
J132 Synchronizer (roll)
J133 Synchronizer (roll groundspeed)
*J134 Lateral collective coupler network
J135 Synchronizer amplifier (heading)
J136 Demodulator amplifier (heading)
J137 Synchronizer (heading)
J138 Motor drive amplifier (heading)
J139 Motor drive amplifier (pitch)
J140 Summing network (roll-heading)
J159 Relay driver (yaw rate)
K141 Heading engage relay
K142 Pitch attitude engage relay
K143 Roll attitude engage relay
K144 Automatic pedal trim relay
K145 BAR ALT control relay
K147 RDR ALT control relay
K148 Pitch groundspeed relay
K149 RDR ALT reliability relay
K150 Roll groundspeed relay
K151 Power interlock relay
K152 Power relay
K153 Automatic coordinated turn relay
K154 RDR ALT control relay
K158 Pedal force relay
T400 Transformer, phase-reversal
T401 Transformer, stepdown
K402 Transformer, stepdown
T403 Transformer stepdown
T404 Transformer, power



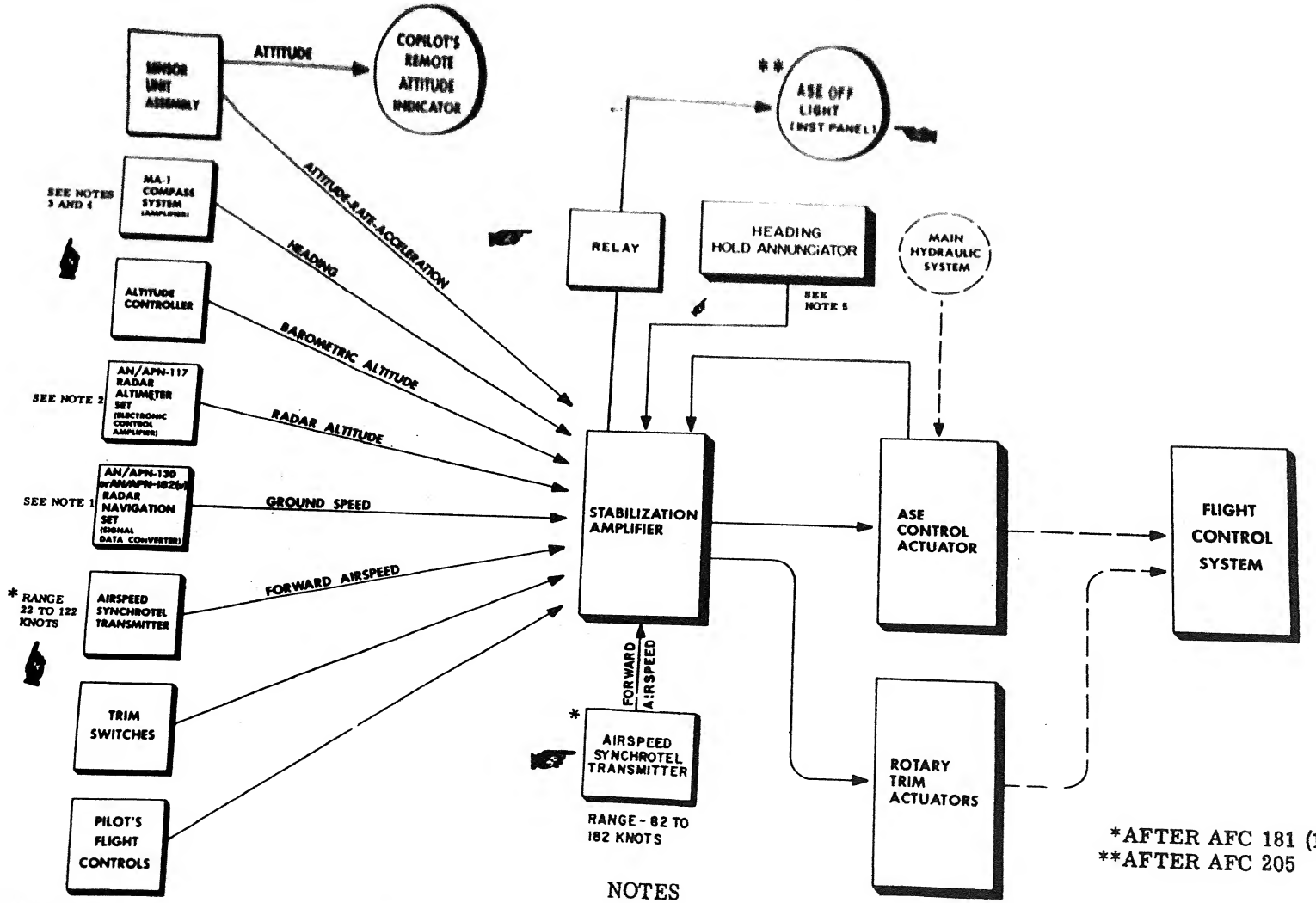


1. ASE control actuator assembly
2. inlet fitting (system pressure)
3. Outlet fitting (system drain)
4. ASE actuator assembly (lateral)
5. Collective control valve assembly
6. Electro-hydraulic servo valve (lateral)
7. Electric-hydraulic servo valve (longitudinal)
8. Electro-hydraulic servo valve (directional)
9. Electro-hydraulic servo valve (collective)
10. Lateral input lever assembly
11. Collective input lever assembly
12. Longitudinal input lever assembly
13. Directional input lever assembly
14. Locking spring
15. Linear motion transducer (directional)
16. ASE actuator assembly (longitudinal)
17. ASE actuator assembly (directional)
18. Linear motion transducer (longitudinal)
19. Linear motion transducer (lateral)
20. Output lever assembly
21. Series output actuator assembly
22. Collective output actuator assembly
23. Series output actuator assembly
24. Linear motion transducer (collective)
25. Linear velocity transducer assembly
26. Series boost valve assembly (3 required)
27. Collective boost valve assembly
28. Longitudinal accelerometer actuator
29. Manifold assembly
30. Bypass valve
31. Accelerometer
32. Lateral accelerometer actuator
* 33. Bobweight solenoid

ASE Control Actuator - Front and Rear Views

** NOT INSTALLED AFTER ECP 369

* AFTER ECP 369

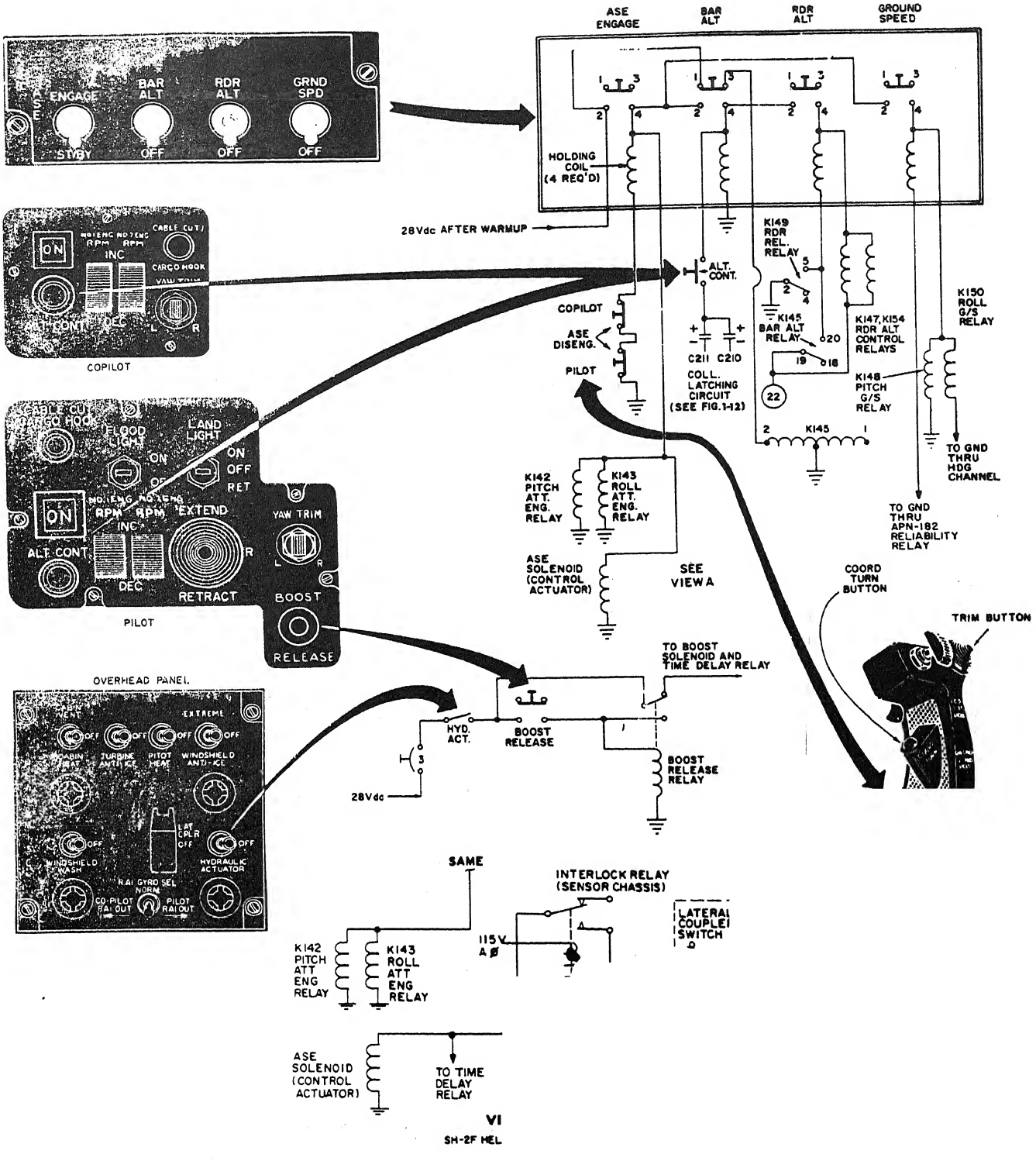


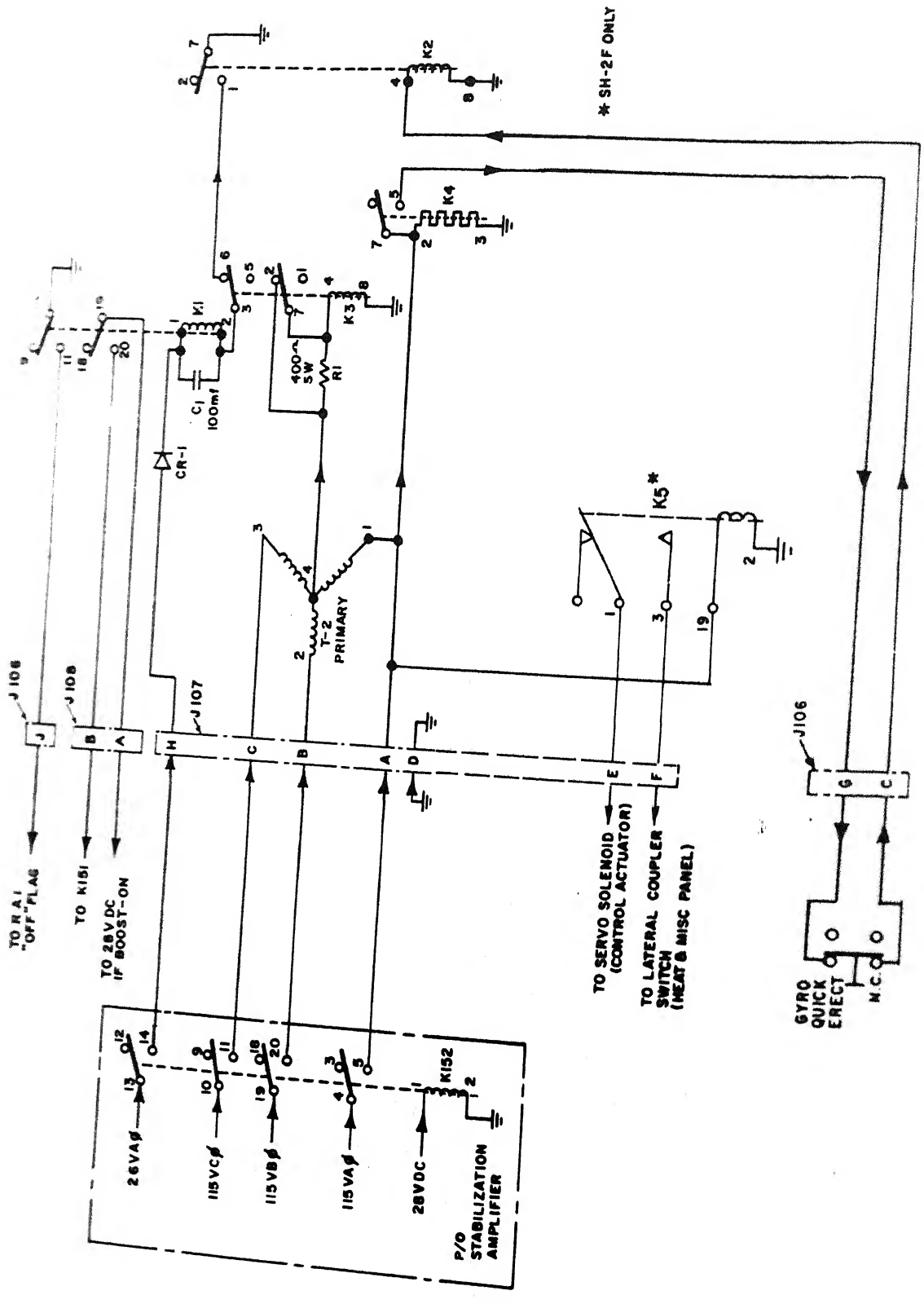
*AFTER AFC 181 (101 ROTOR)
**AFTER AFC 205

NOTES

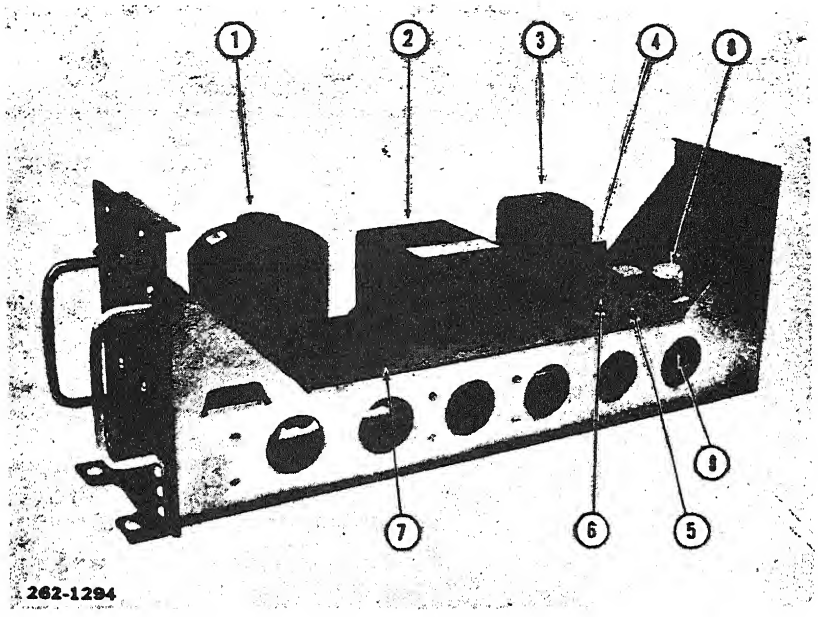
1. AN/APN-182(V) INSTALLED IN SH-2D/SH-2F AND AIRCRAFT INCORPORATING AFC 179 OR AFC 179A1
2. AN/APN-171 RADAR ALTIMETER USED IN SH-2D/SH-2F HELICOPTERS
3. AN/ASN-73 ATTITUDE-HEADING SYSTEM USED IN SH-2D HELICOPTERS
4. AN/ASN-50 ATTITUDE-HEADING SYSTEM USED IN SH-2F HELICOPTERS
5. HEADING HOLD ANNUNCIATOR INSTALLED IN SH-2D/SH-2F ONLY.

ASE - Block Diagram


ASE ENGAGE
BAR ALT
RDR ALT
GRND SPD
STBY
OFF
OFF
OFF
ASE
ENGAGE
BAR ALT
RDR ALT
GROUND SPEED
HOLDING COIL (4 REQ'D)
28Vdc AFTER WARMUP
K149 RDR REL. RELAY
ALT. CONT.
COPILOT
ASE DISENG.
PILOT
C211 C210
COLL. LATCHING CIRCUIT (SEE FIG. 1-12)
K145 BAR ALT RELAY
K147, K154 RDR ALT CONTROL RELAYS
K150 ROLL G/S RELAY
K148 PITCH G/S RELAY
K145
TO GND THRU HDG CHANNEL
TO GND THRU APN-182 RELIABILITY RELAY
K142 PITCH ATT. ENG. RELAY
K143 ROLL ATT. ENG. RELAY
ASE SOLENOID (CONTROL ACTUATOR)
SEE VIEW A
COPILOT
ON
INC
DEC
ALT CONT
CARGO HOOK
YAW TRIM
CABLE CUT
PILOT
CABLE CUT
CARGO HOOK
FLOOD LIGHT
LAND LIGHT
ON
OFF
RET
EXTEND
RETRACT
YAW TRIM
BOOST
RELEASE
COORD TURN BUTTON
TRIM BUTTON
OVERHEAD PANEL
TO BOOST SOLENOID AND TIME DELAY RELAY
HYD. ACT.
BOOST RELEASE
BOOST RELEASE RELAY
28Vdc
SAME
INTERLOCK RELAY (SENSOR CHASSIS)
115V A Ø
K142 PITCH ATT ENG RELAY
K143 ROLL ATT ENG RELAY
ASE SOLENOID (CONTROL ACTUATOR)
TO TIME DELAY RELAY
VI
SH-2F HEL

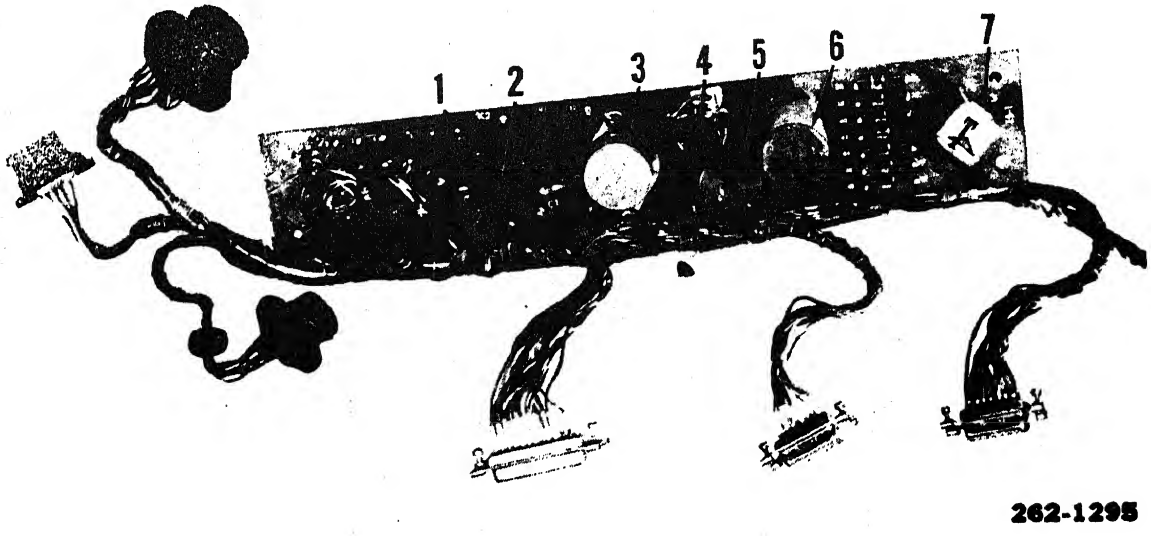


Time Delay and Power Interlock Circuit



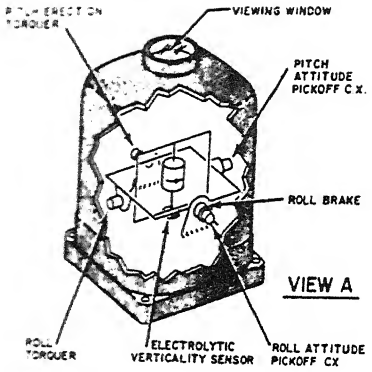
1. Vertical gyro
2. Rate gyro package
3. Accelerometer unit
4. Magnetic modulator
5. Transformer
6. Potentiometer
7. Deck plate assembly
8. Coupler interlock relay
9. Roll rate filter circuit board assembly

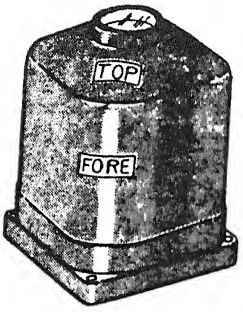
Sensor Unit Assembly - Major Components

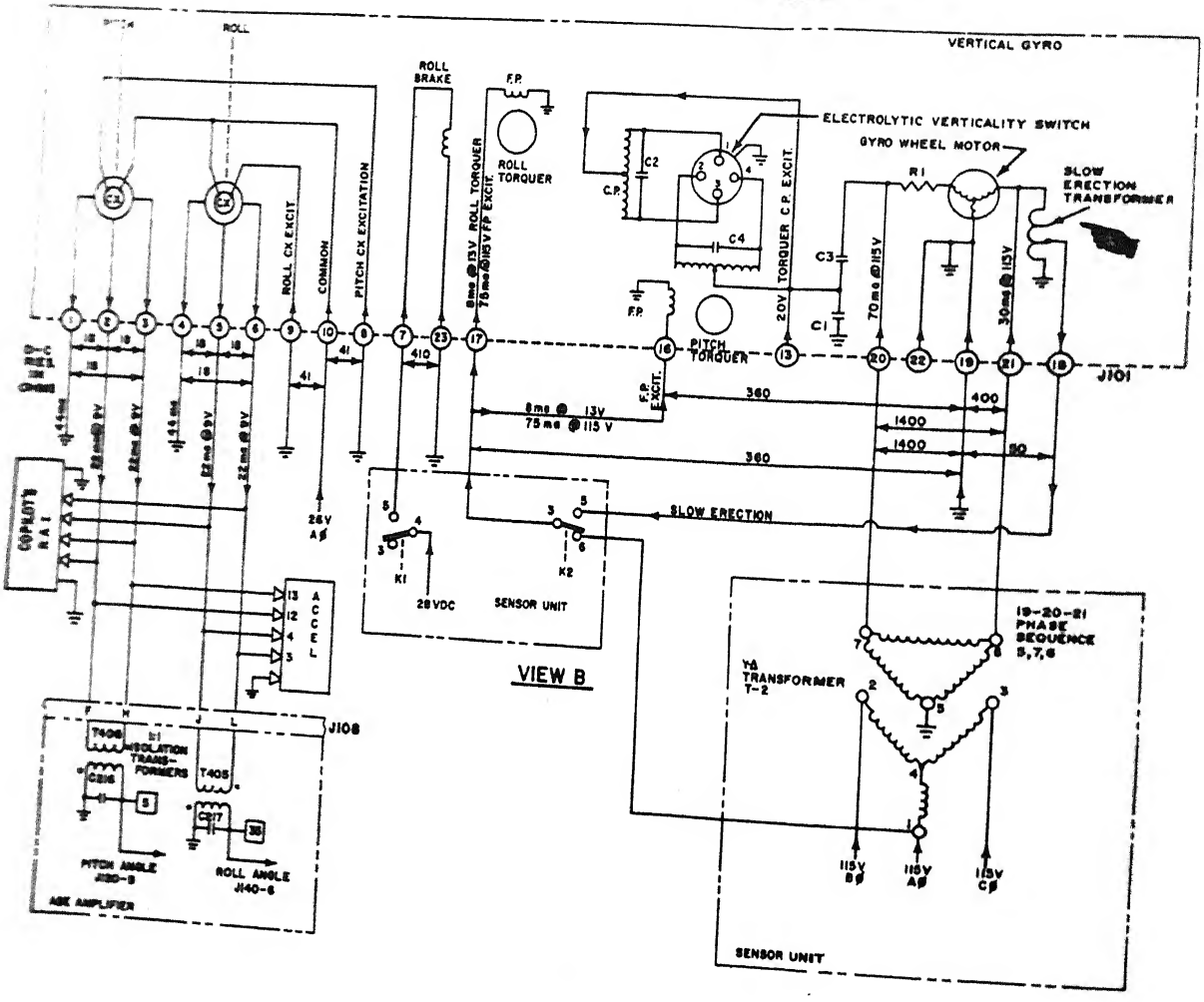


1. Relay K2
2. Relay K3
3. Relay K1
4. Relay K4
5. Transformer T1
6. Transformer T2
7. Transformer T3

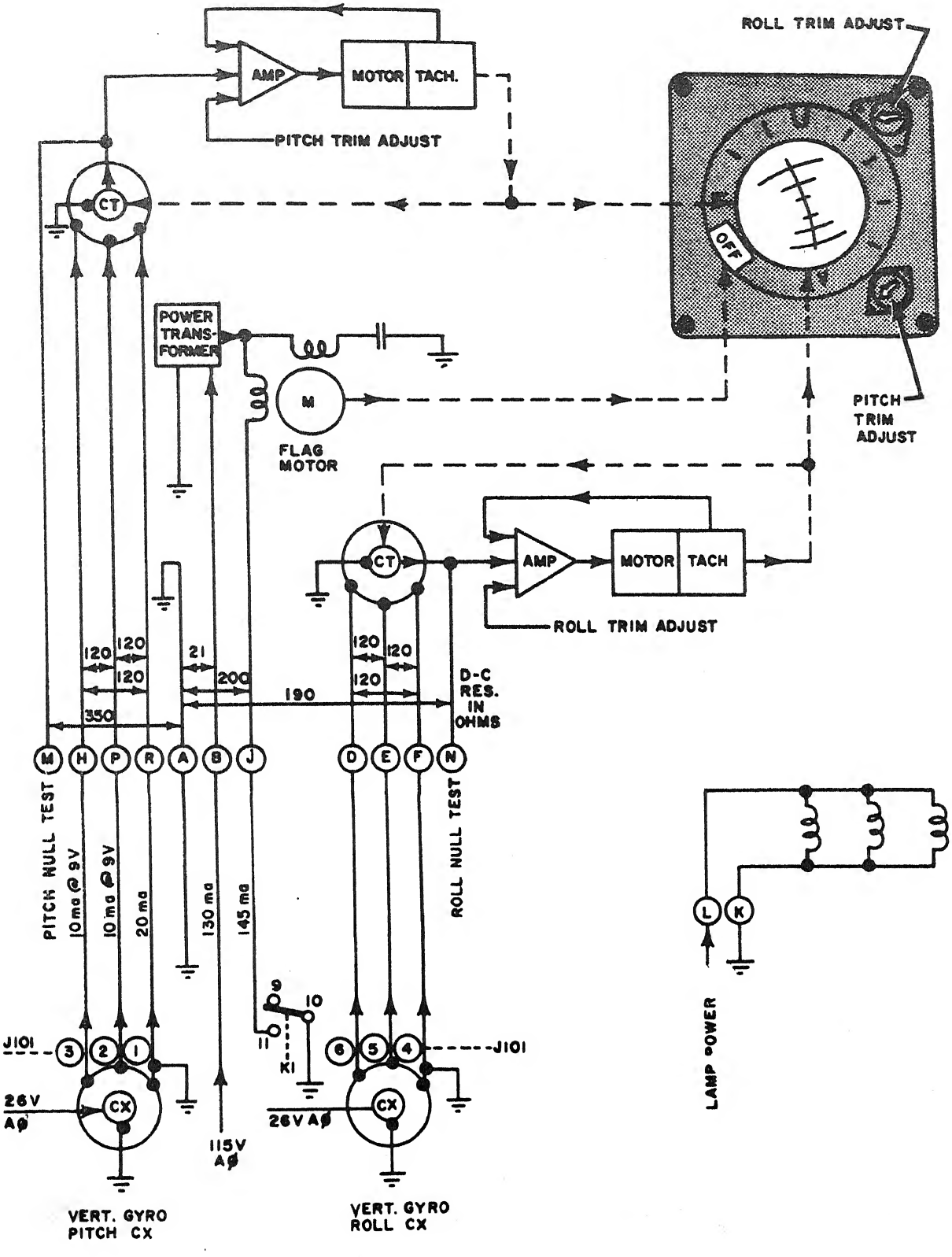
Sensor Unit Sub-Chassis Assembly



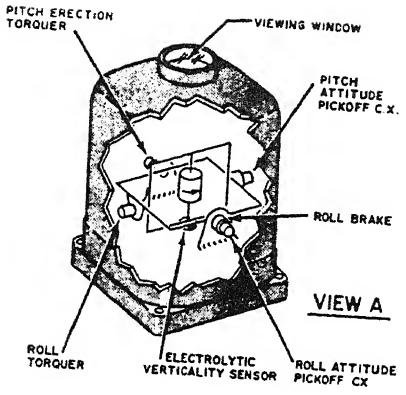


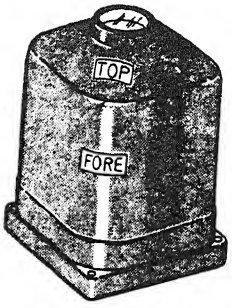


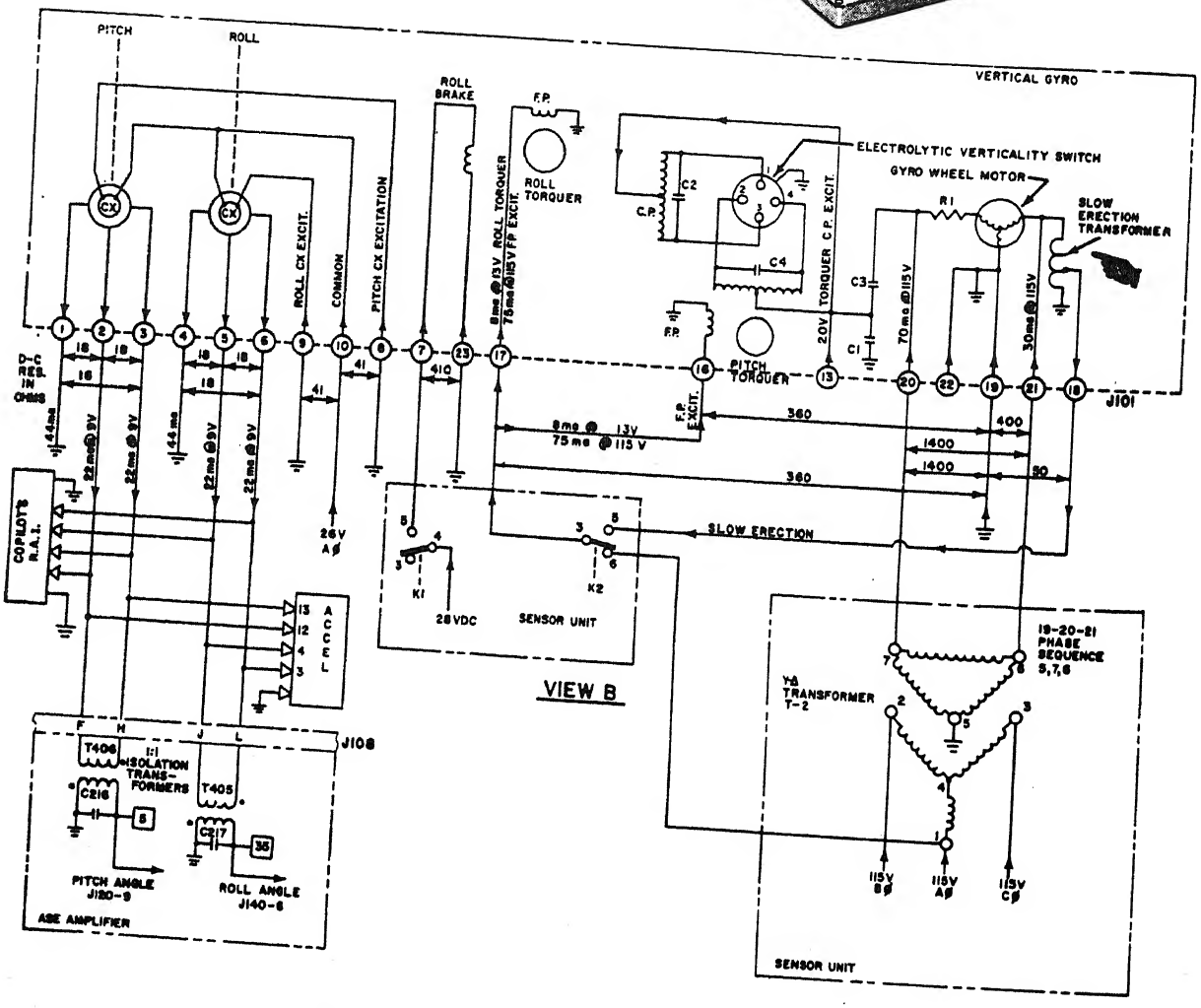
Vertical Gyro



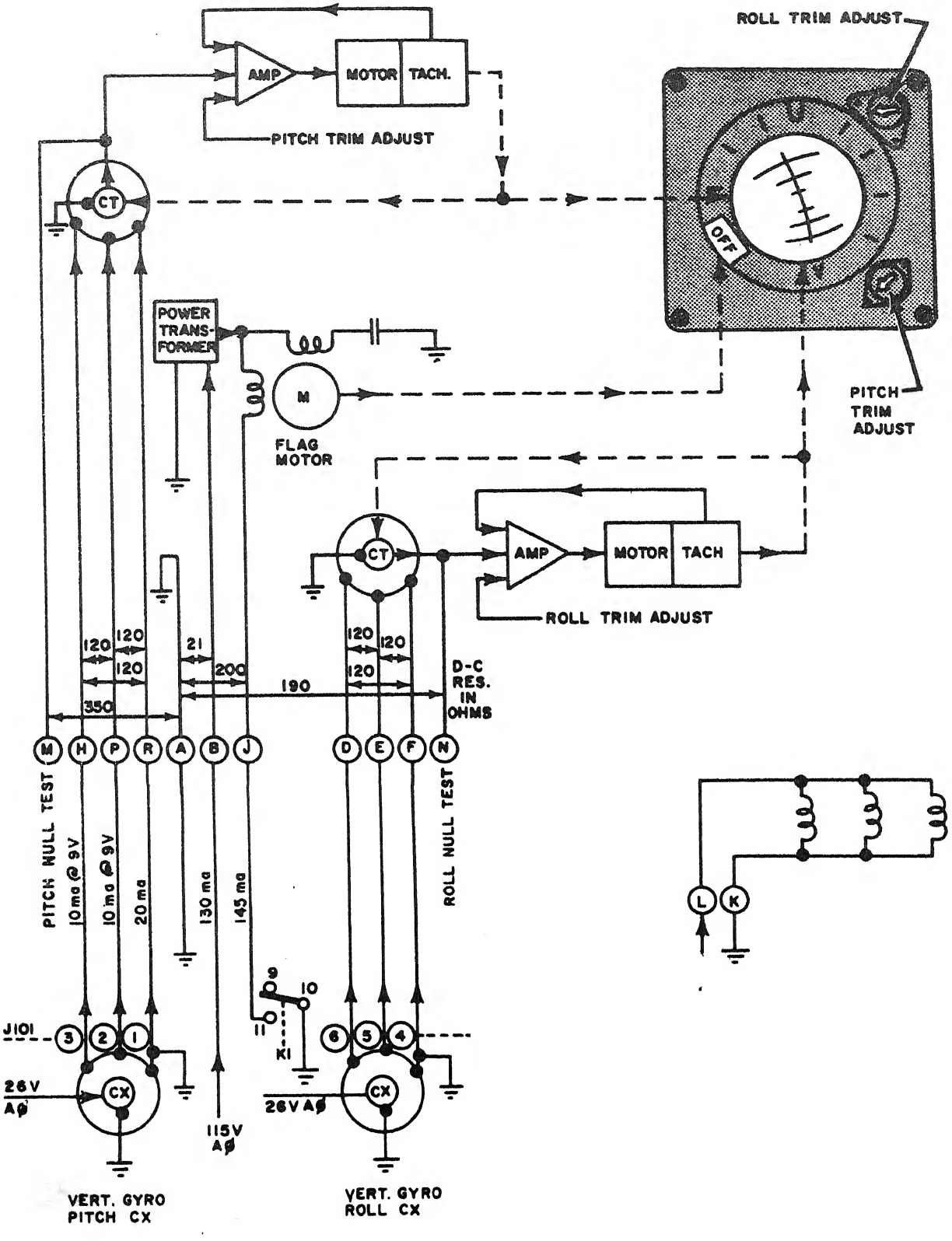
Copilot's Remote Attitude Indicator



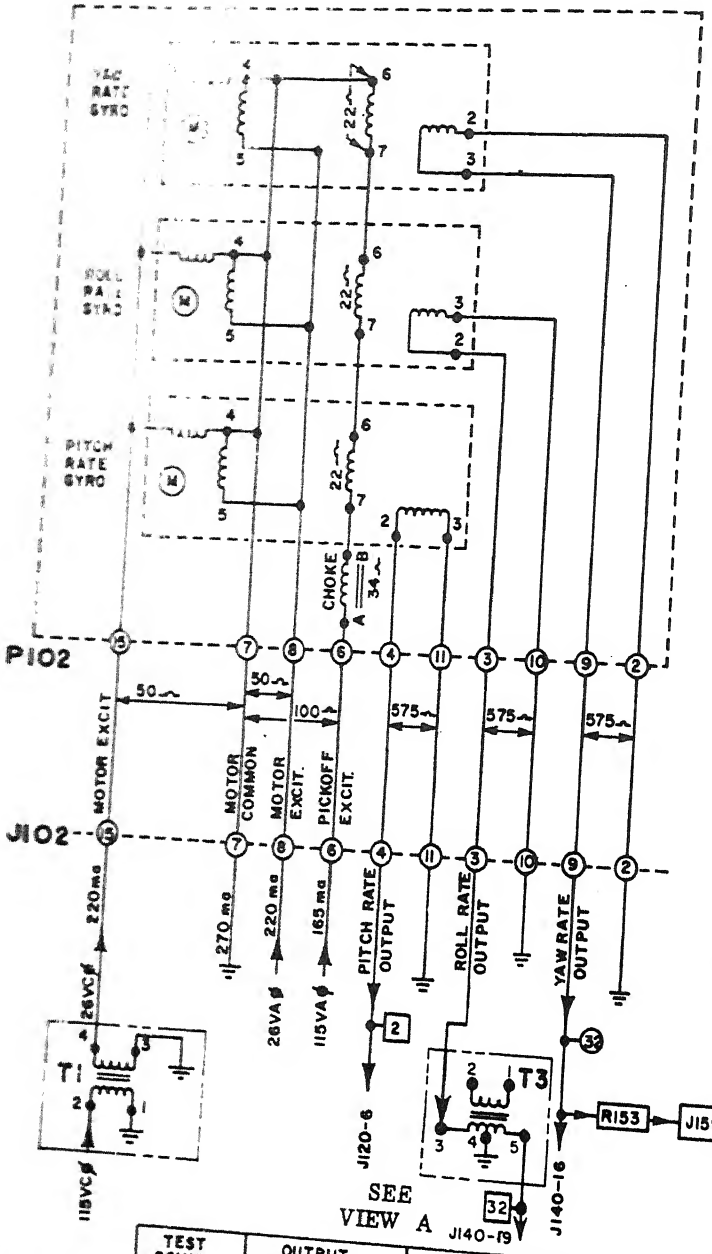


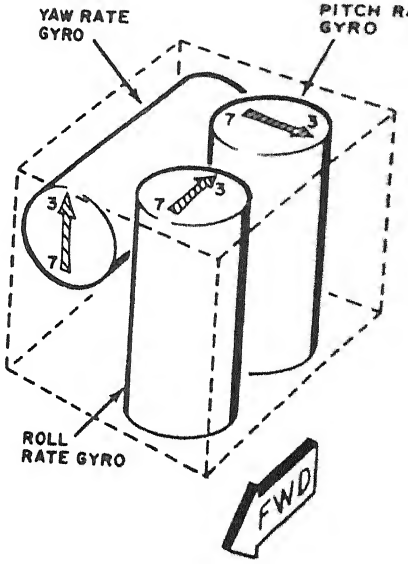


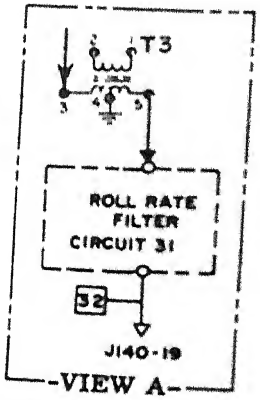
Vertical Gyro


ROLL TRIM ADJUST
AMP
MOTOR
TACH.
PITCH TRIM ADJUST
CT
OFF
POWER TRANS-FORMER
M
FLAG MOTOR
PITCH TRIM ADJUST
CT
AMP
MOTOR
TACH
ROLL TRIM ADJUST
120
120
120
120
21
200
190
350
120
120
120
D-C RES. IN OHMS
M
H
P
R
A
B
J
D
E
F
N
PITCH NULL TEST
10 ma @ 9V
10 ma @ 9V
20 ma
130 ma
145 ma
ROLL NULL TEST
L
K
9
10
11
K1
J101
3
2
1
6
5
4
26V Aφ
CX
115V Aφ
26V Aφ
CX
VERT. GYRO PITCH CX
VERT. GYRO ROLL CX

Copilot's



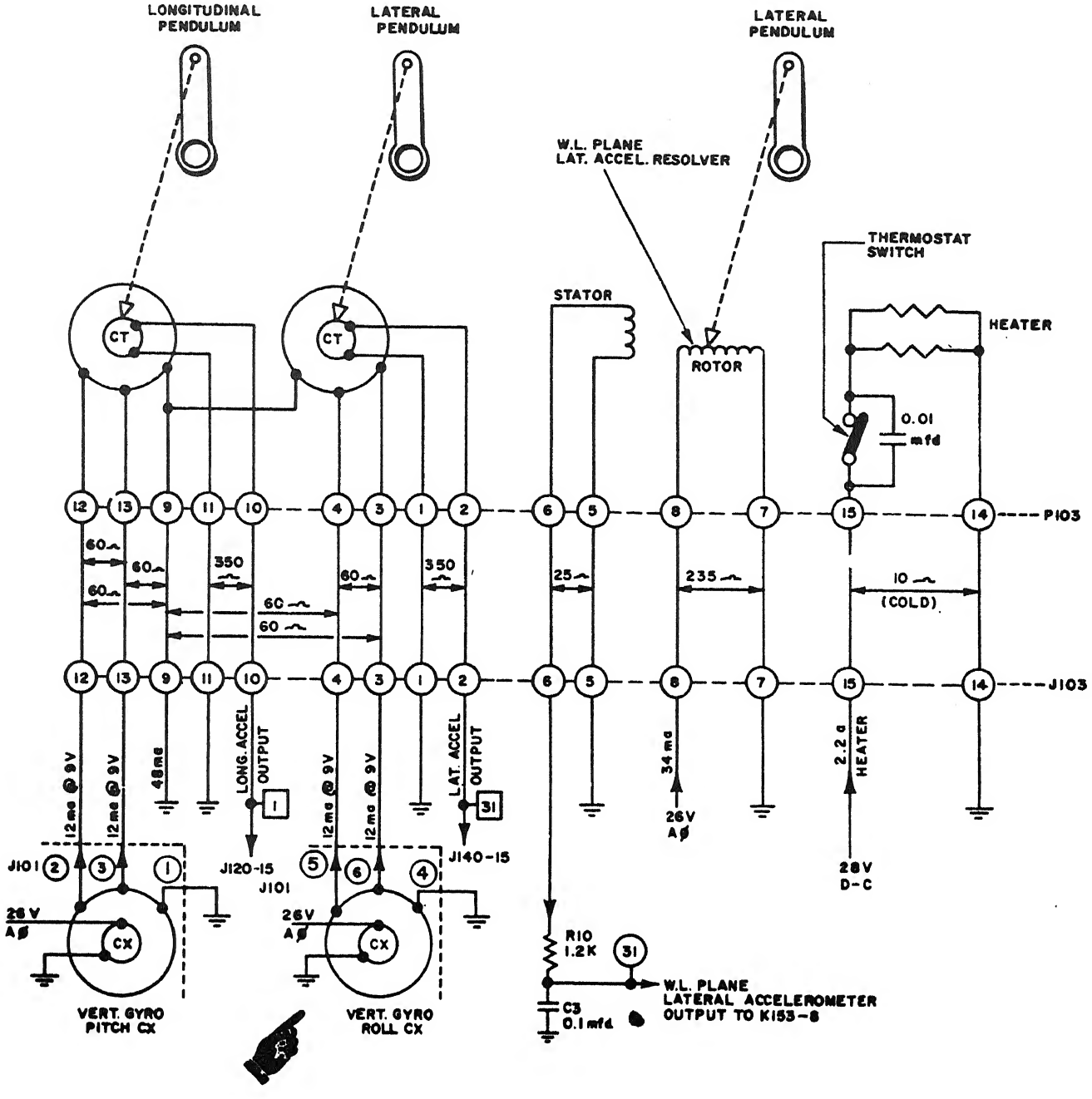




AFTER AFC 181 (101 ROTOR) SEE FIG. 2-55 SHEET 2 FOR SCHEMATIC

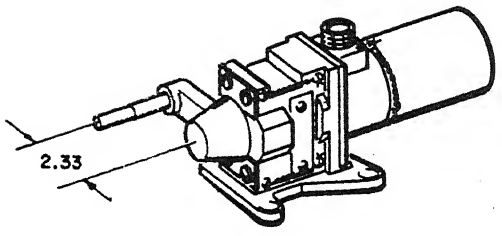
	TEST POINT	OUTPUT SENSITIVITY	SENSE OF MOTION	POLARITY OF R.G. OUTPUT
PITCH R.G.	J157-2	0.14 V/deg/sec	NOSING DOWN NOSING UP	+Aø −Aø
ROLL R G	J157-32	0.14 V/deg/sec	ROLLING RIGHT DOWN ROLLING LEFT DOWN	+Aø −Aø
YAW R G	J156-32	0.14 V/deg/sec	RIGHT TURN LEFT TURN	+Aø −Aø

Rate Gyro

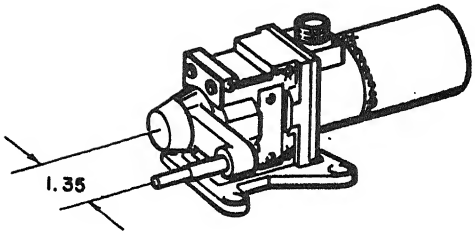


	TEST POINT	SENSITIVITY	POLARITY OF OUTPUT
LONGITUDINAL ACCELEROMETER	J157-1	360 mv/deg = 640 mv/ft/sec/sec	ACCELERATING TO REAR −A∅ ACCELERATING TO FORWARD +A∅
LATERAL ACCELEROMETER	J157-31	360 mv/deg = 640 mv/ft/sec/sec	ACCELERATING TO LEFT −A∅ ACCELERATING TO RIGHT +A∅
LATERAL W.L. PLANE ACCEL.	J156-31	190 mv/deg = 340 mv/ft/sec/sec	CASE TILTED TO RIGHT −A∅ CASE TILTED TO LEFT +A∅

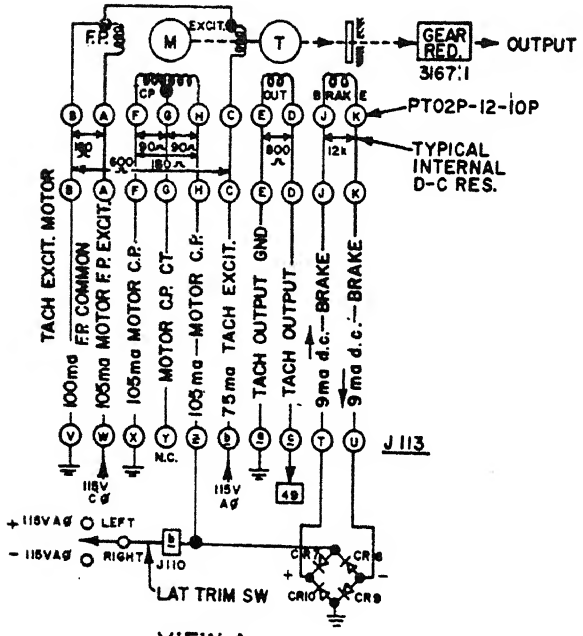
Accelerometer



DIRECTIONAL

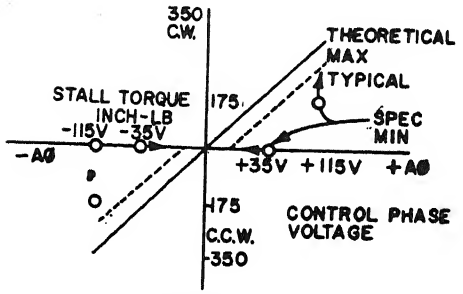


LATERAL & LONGITUDINAL



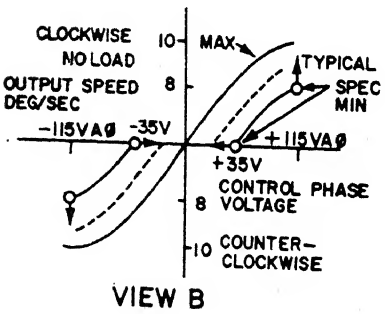
VIEW A

TRIM CIRCUITS



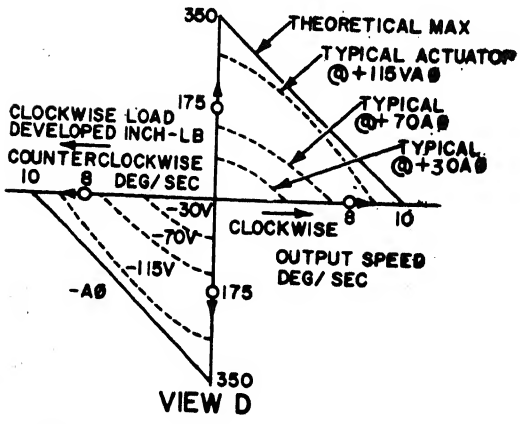
VIEW C

STALL TORQUE VS. CONTROL PHASE VOLTAGE AT RATED (115) F.P. VOLTAGE



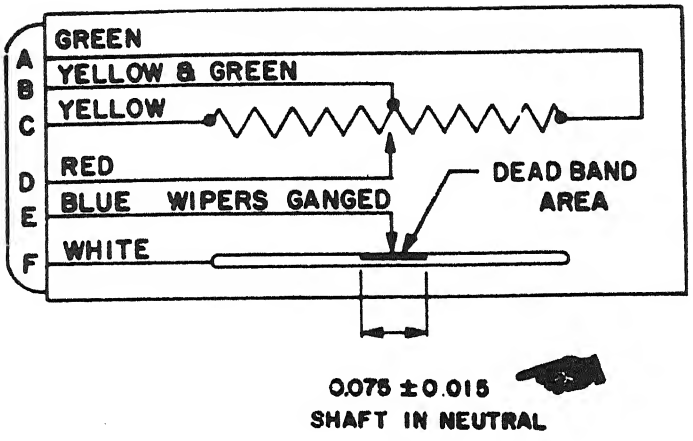
VIEW B

NO LOAD SPEED VS. CONTROL PHASE VOLTAGE AT RATED (115V) F.P. VOLTAGE

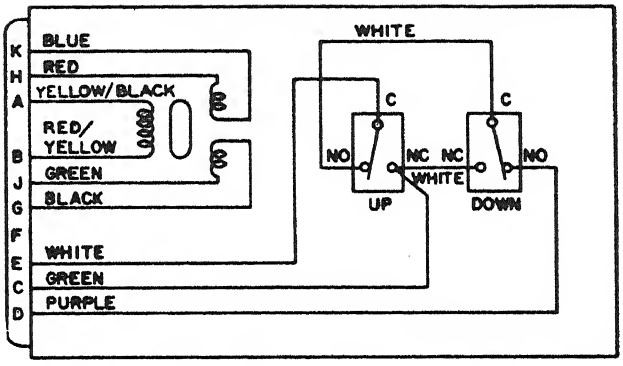


VIEW D

TORQUE VS. SPEED AT RATED F.P. (115V) AND VARIABLE C.P. VOLTAGE

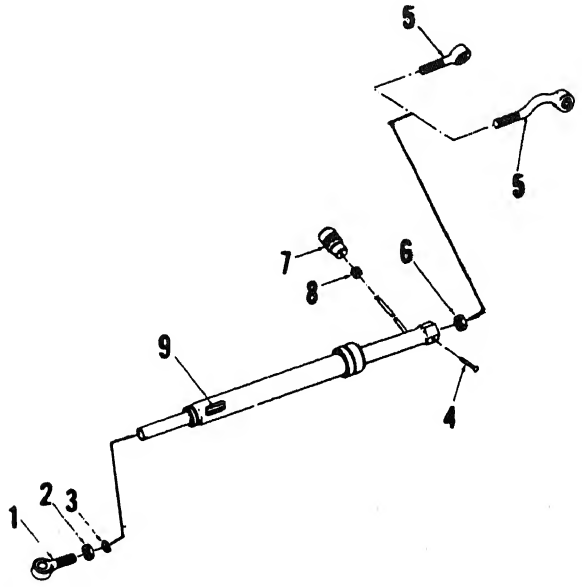


Trim Control Spring Strut Schematic



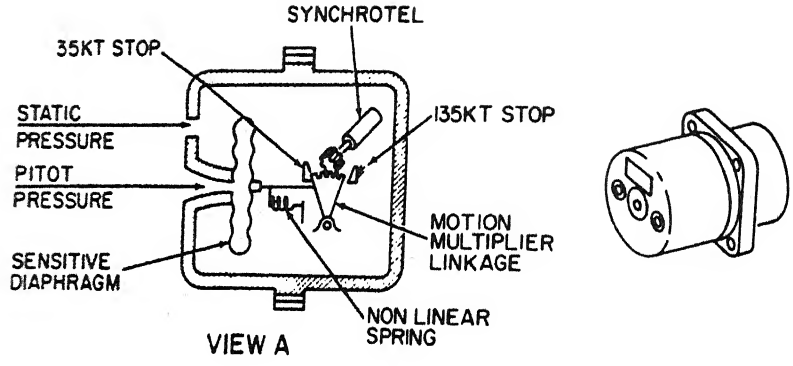
NOTE
BOTH SWITCHES ARE SHOWN IN STATIC POSITION.
(NO PRESSURE ON COLLECTIVE STICK.)

Collective Control Force Rod Schematic

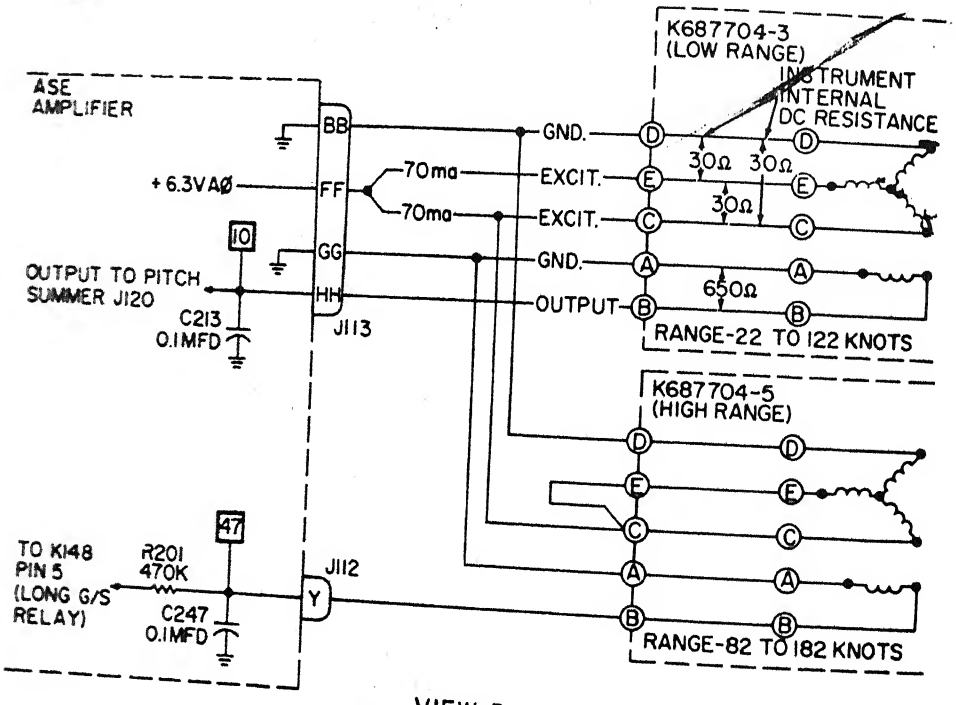


1. Rodend
2. Nut
3. Key washer
4. Rivet
5. Rodend
6. Nut
7. Connector plug
8. Grommet
9. Potentiometer

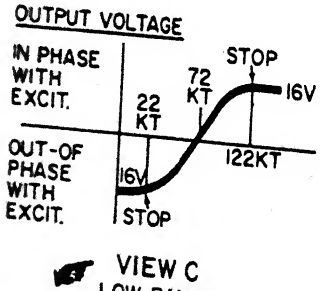
Trim Control Spring Strut Assembly



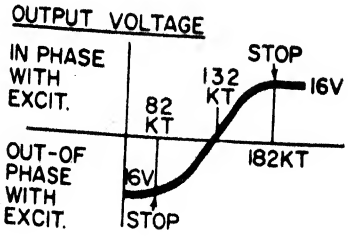
VIEW A



VIEW B



VIEW C
LOW RANGE
(K687704-3)

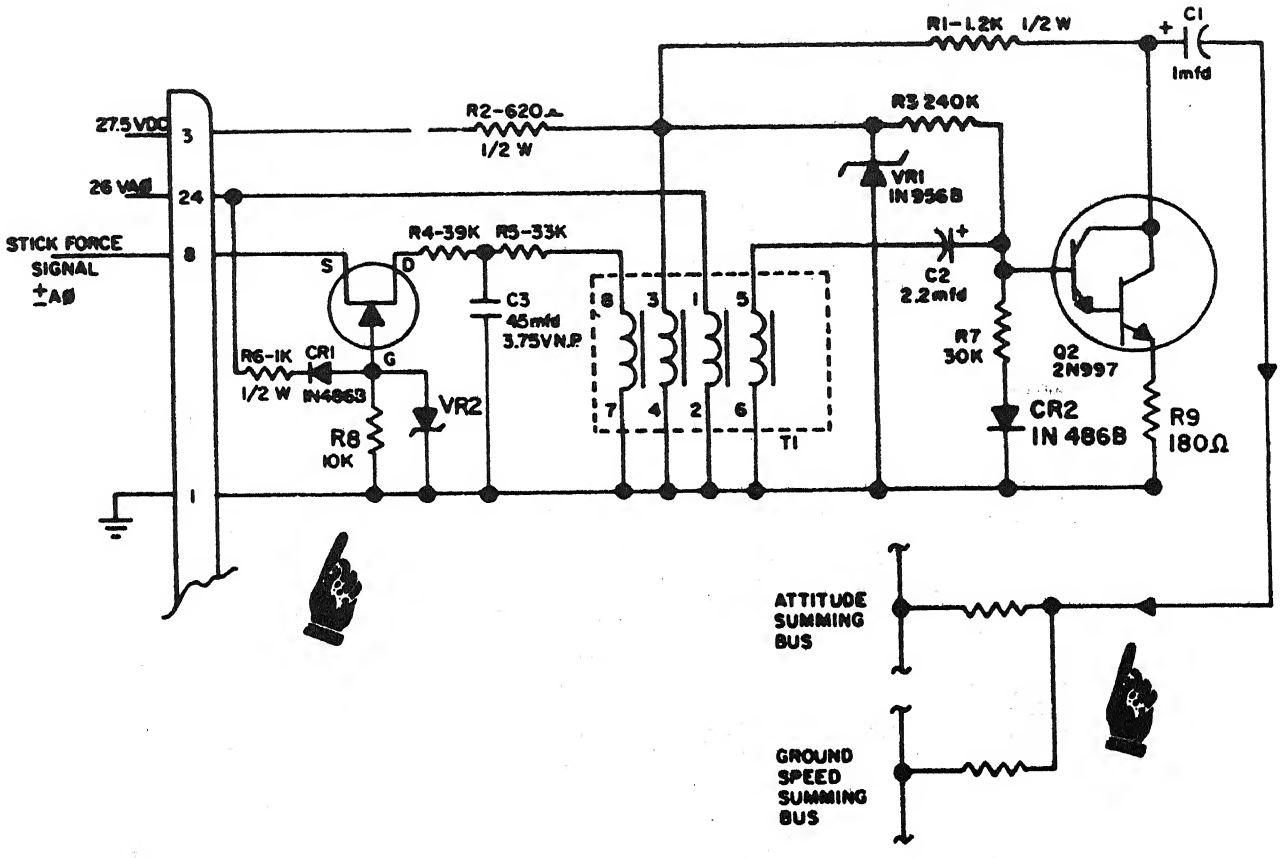


VIEW D
HIGH RANGE
(K687704-5)

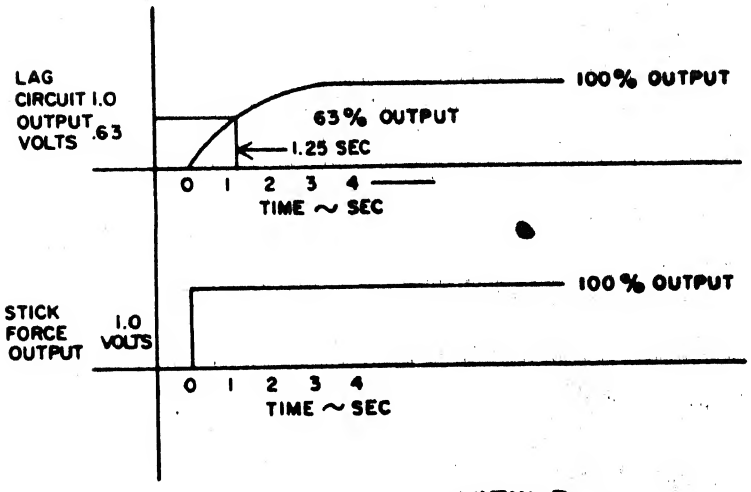
☐ TEST POINT ON AMPLIFIER TEST RECEPTACLE J157

AFTER AFC181 (101 ROTOR)

Airspeed Synchrotel Transmitter

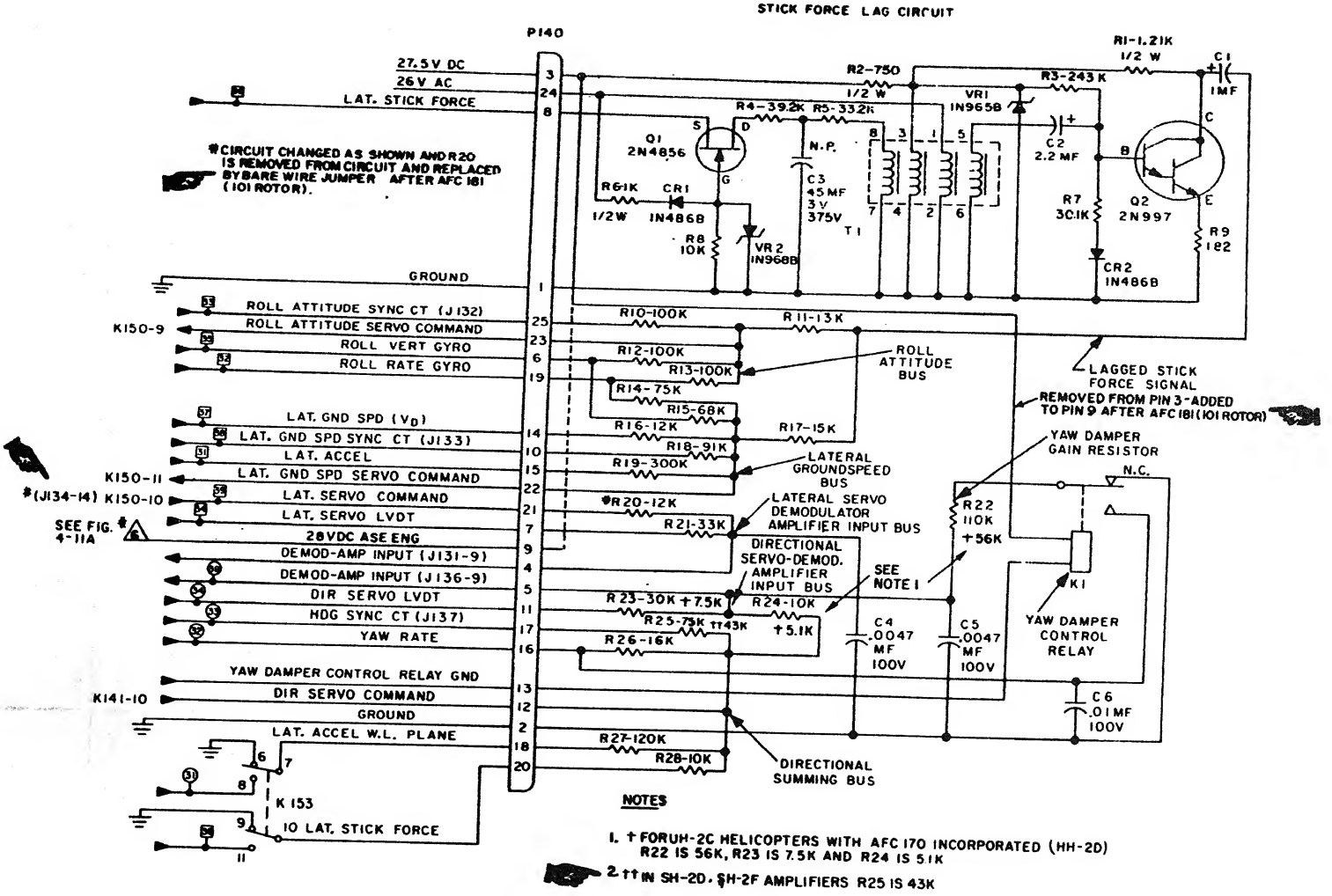


VIEW A

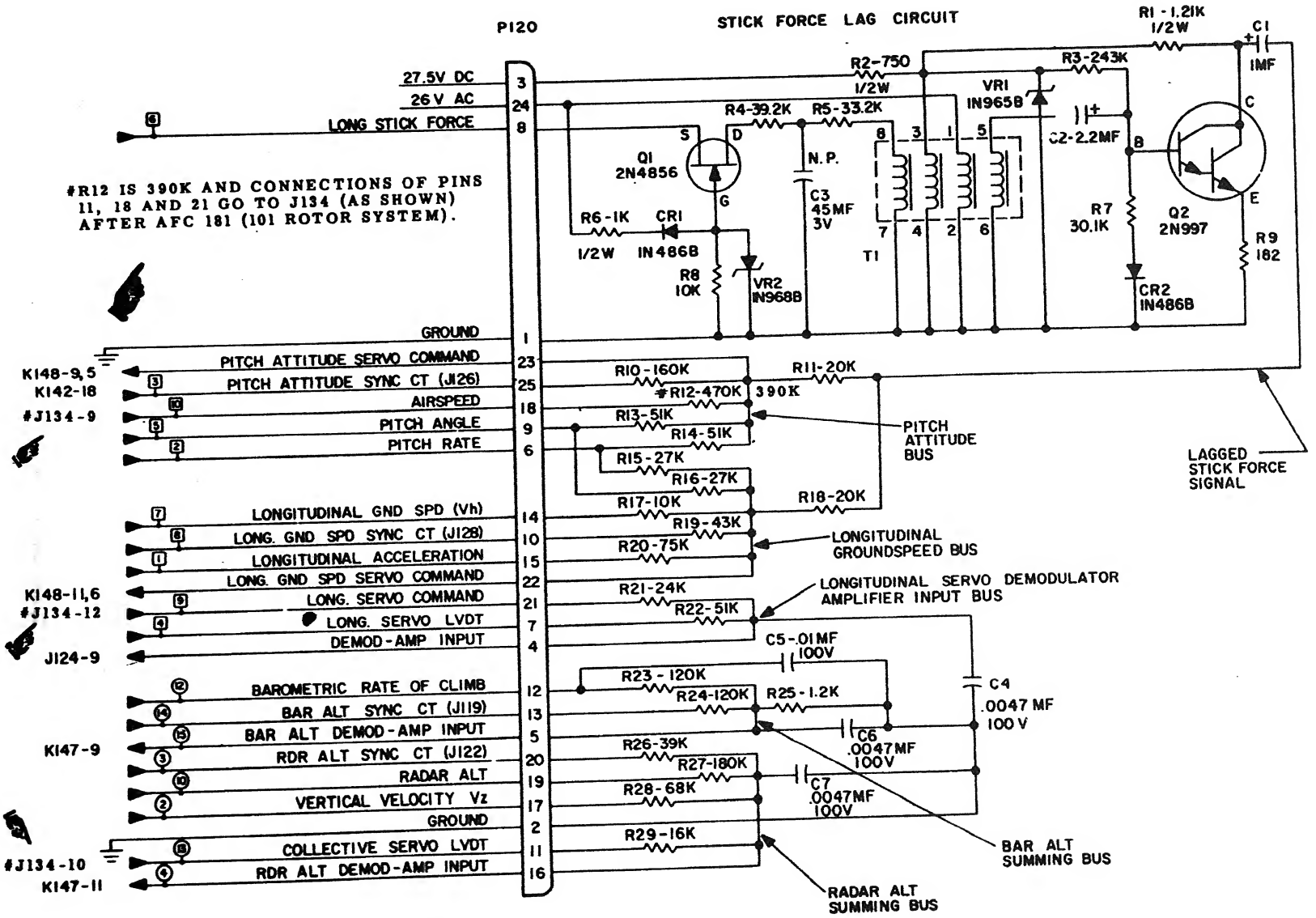


VIEW B

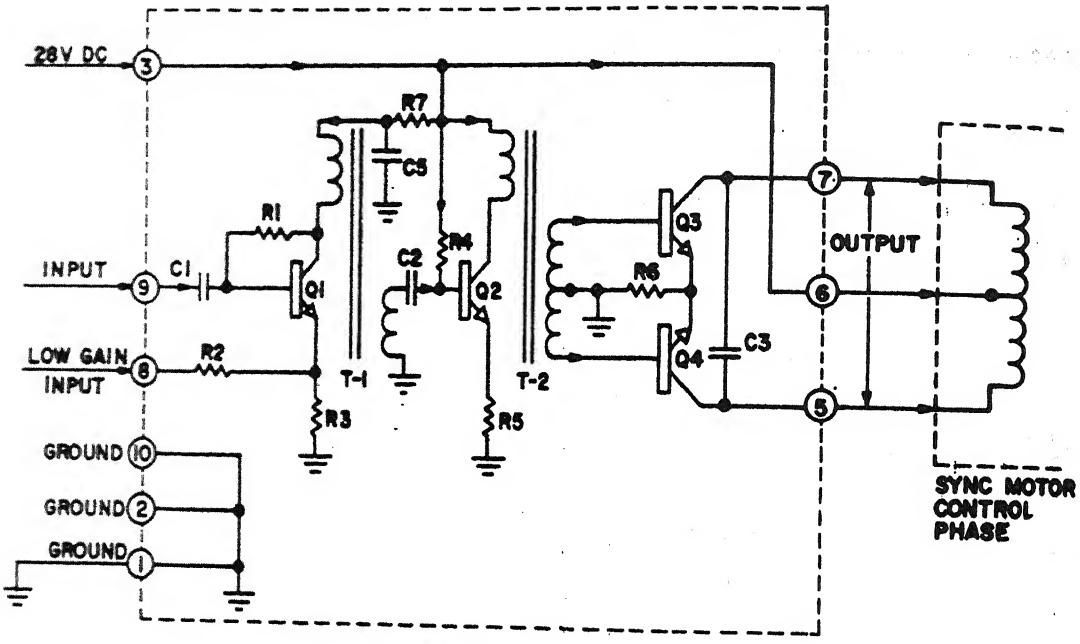
Stick Force Non-Linearity Circuit



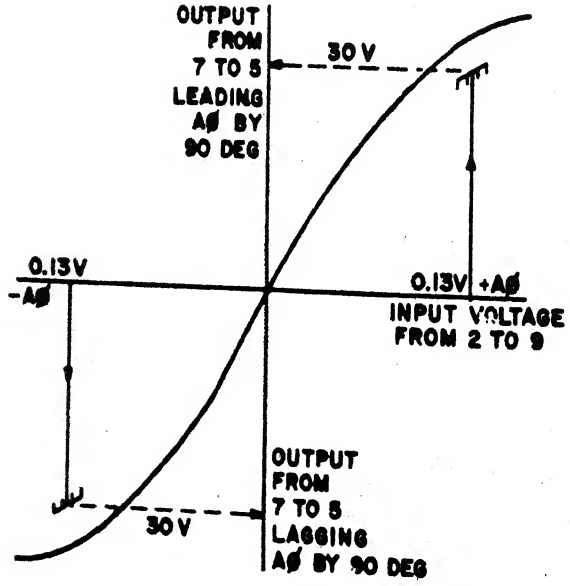
Summing Network (Lateral - Directional) J140



Summing Network (Longitudinal - Collective) J120

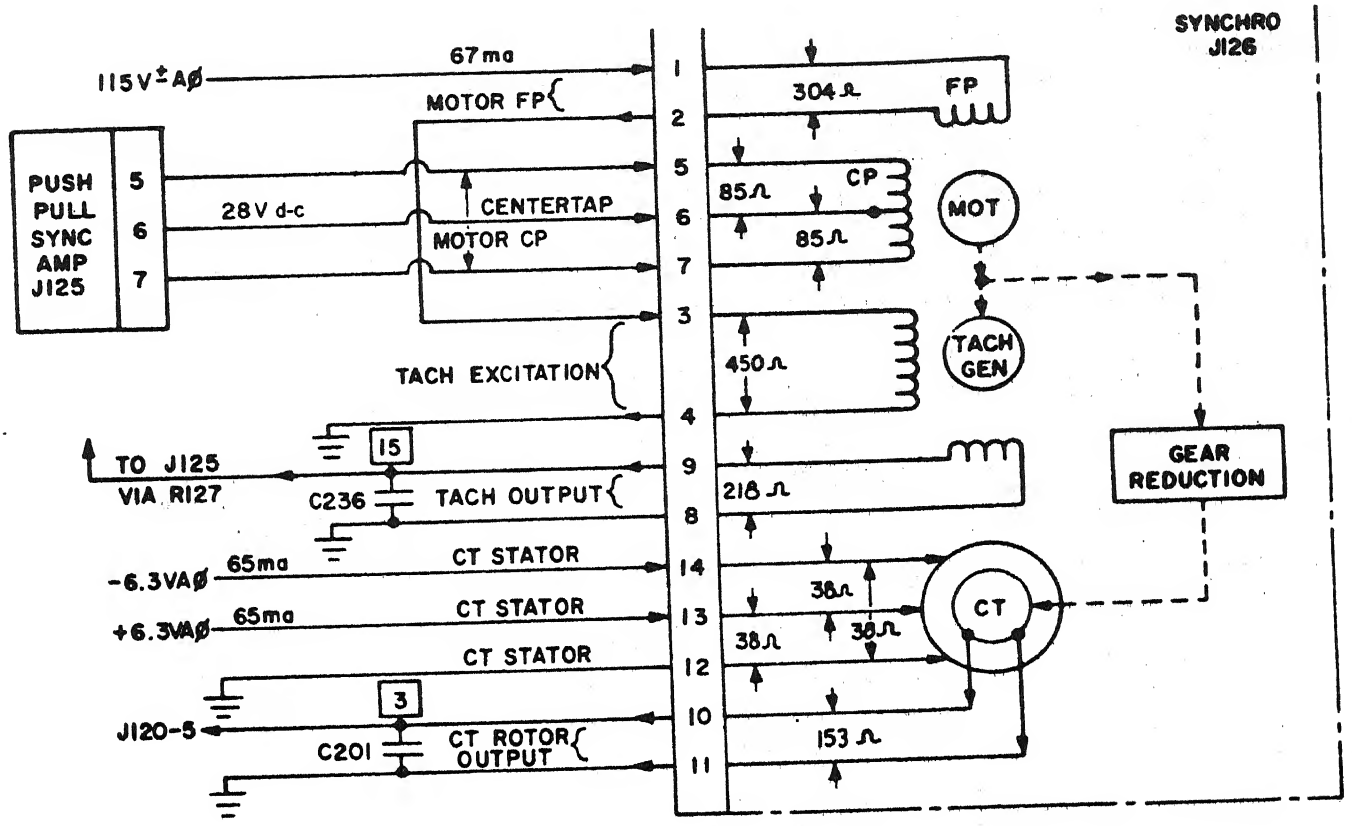


VIEW A

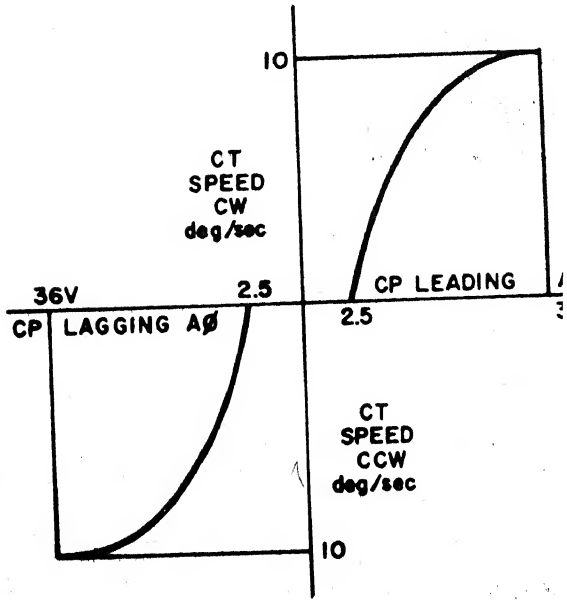


VIEW B

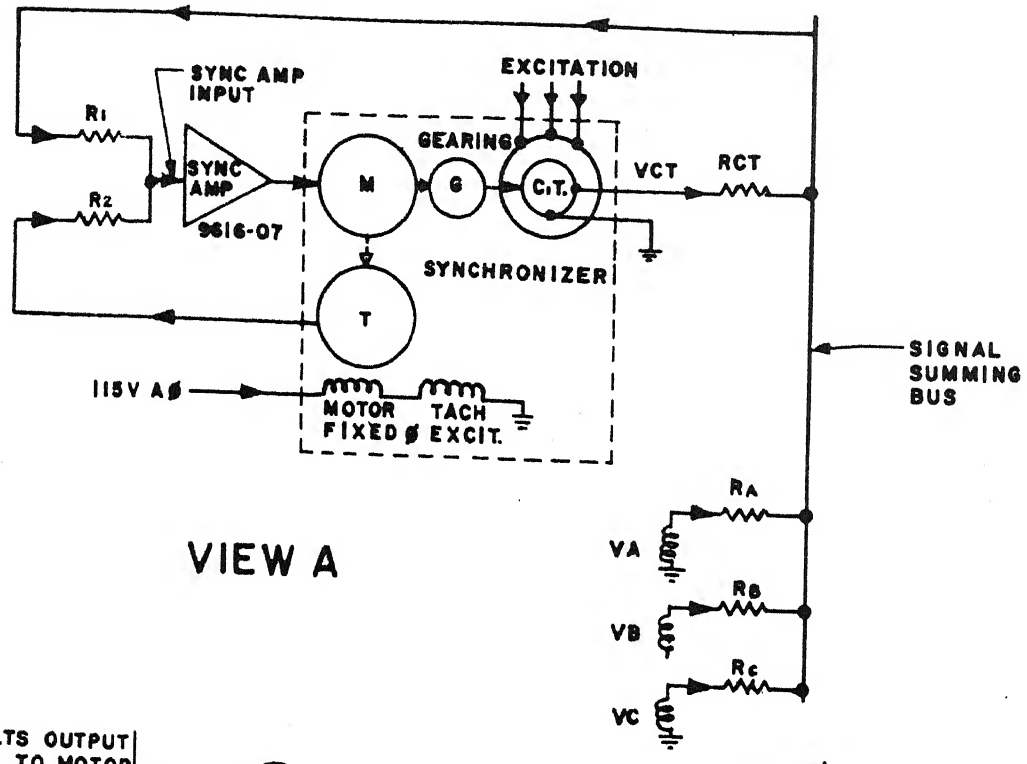
Synchronizer Amplifier



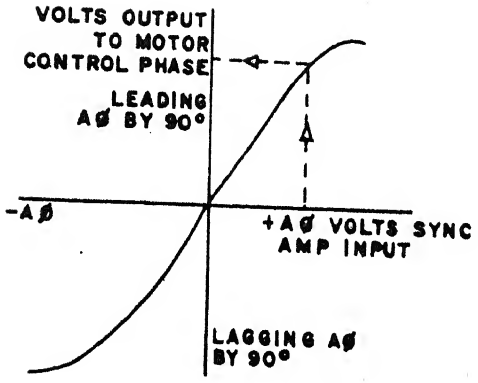
VIEW A (PITCH ATTITUDE SYNCHRONIZER (J126) SHOWN)



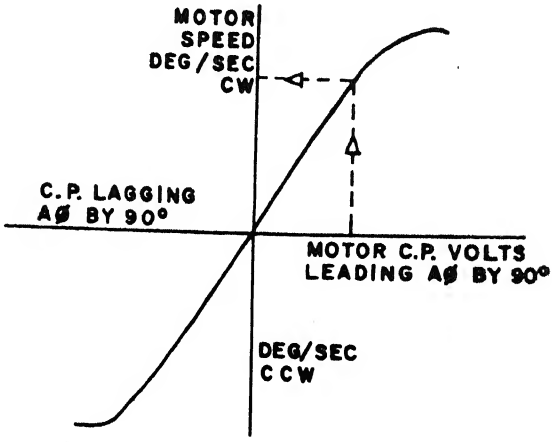
VIEW B



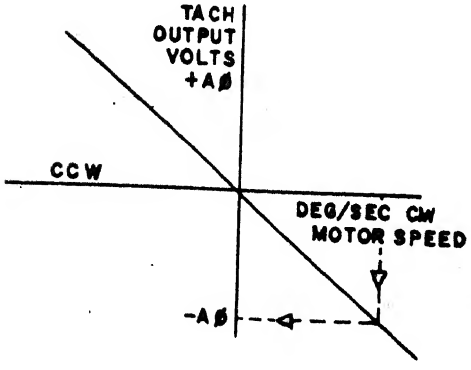
VIEW A



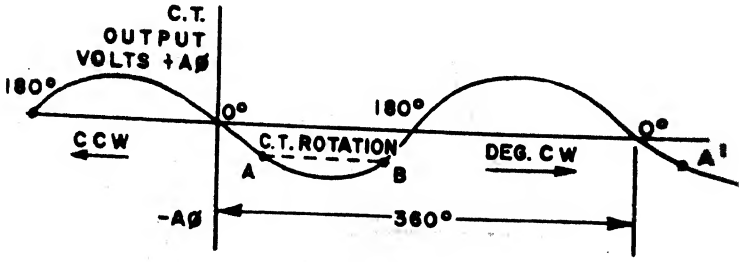
VIEW B



VIEW C

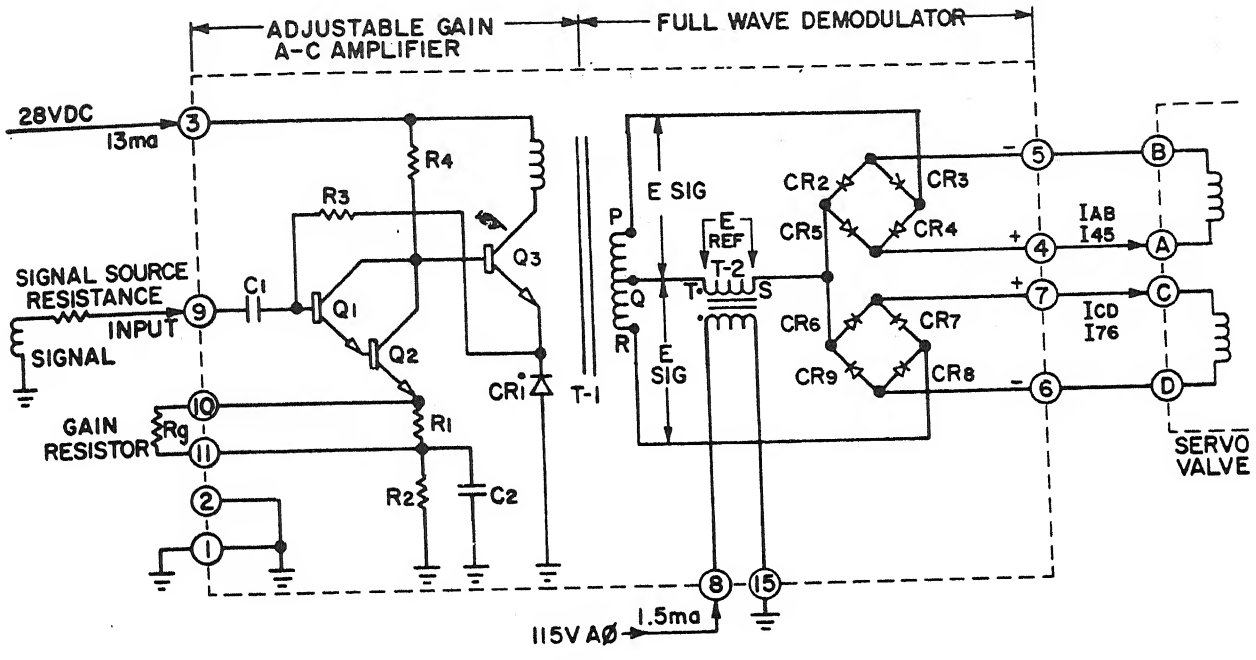


VIEW D

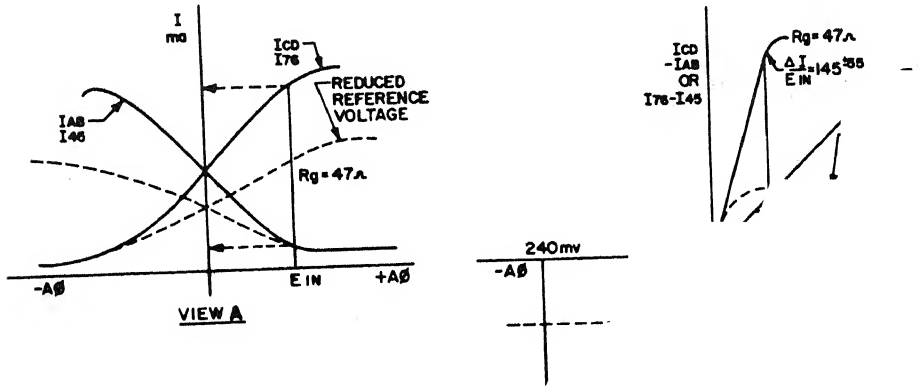


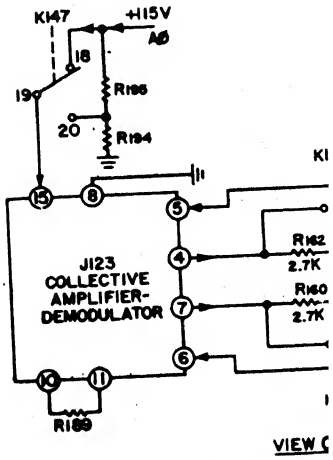
VIEW E

Principles of Synchronization

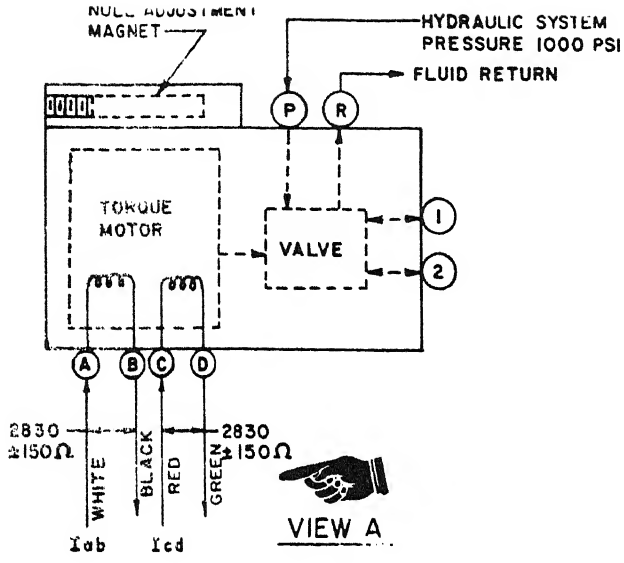


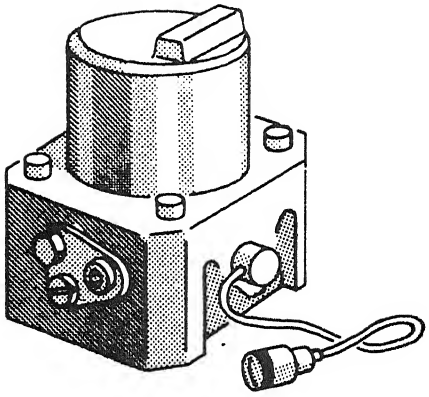
Demodulator Amplifier Schematic

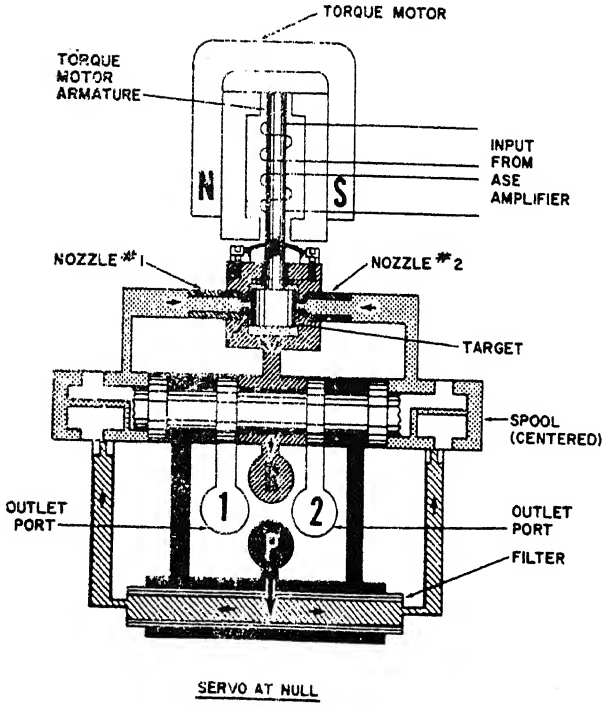




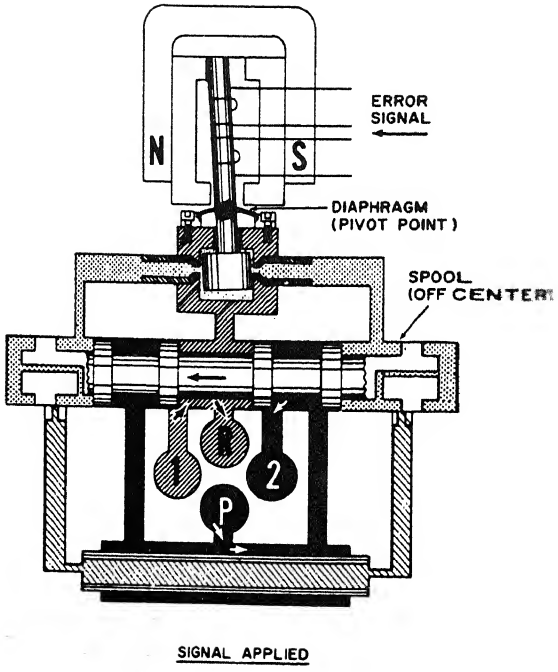
Demodulat



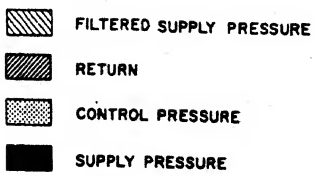




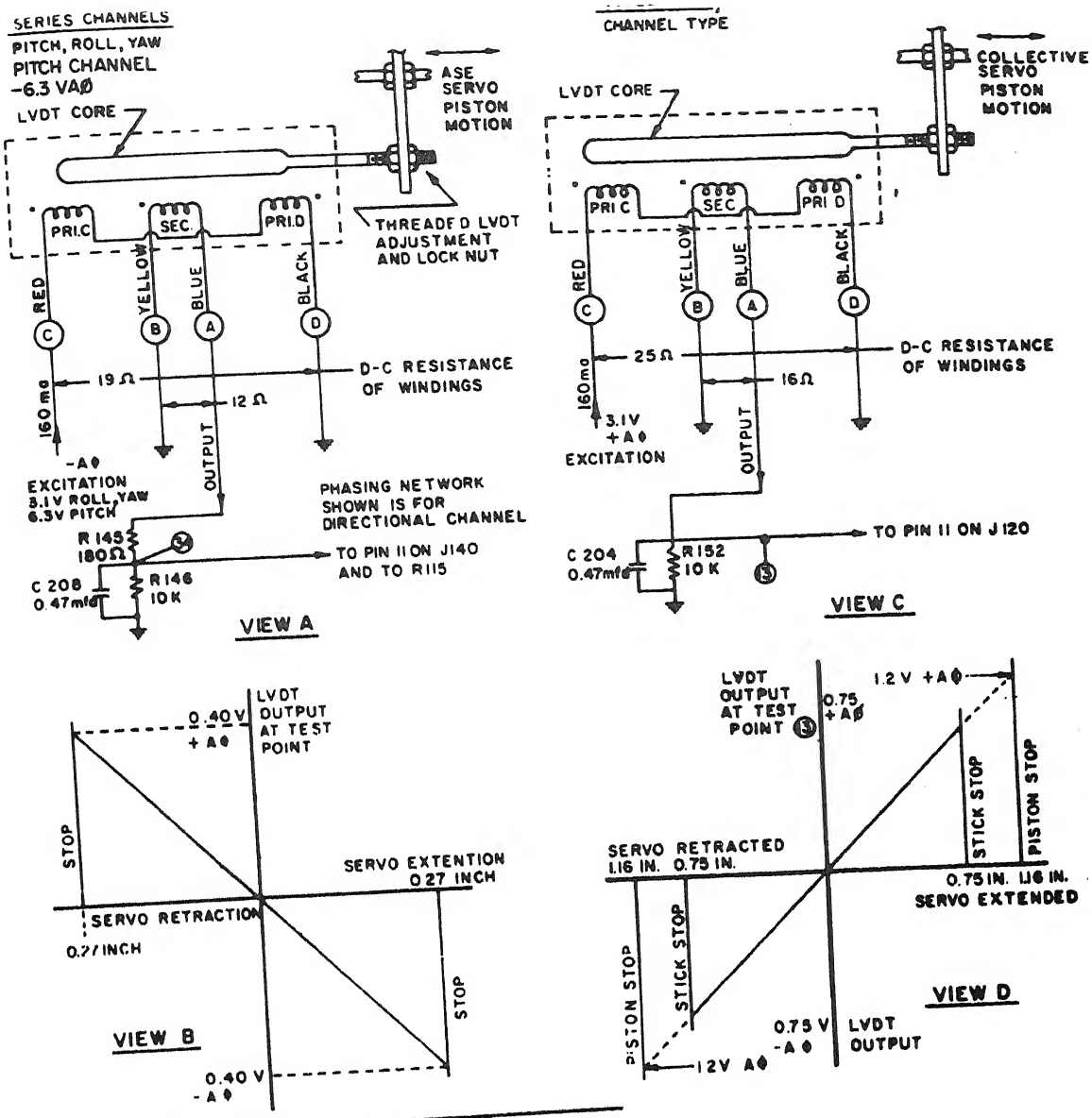
SERVO AT NULL



SIGNAL APPLIED

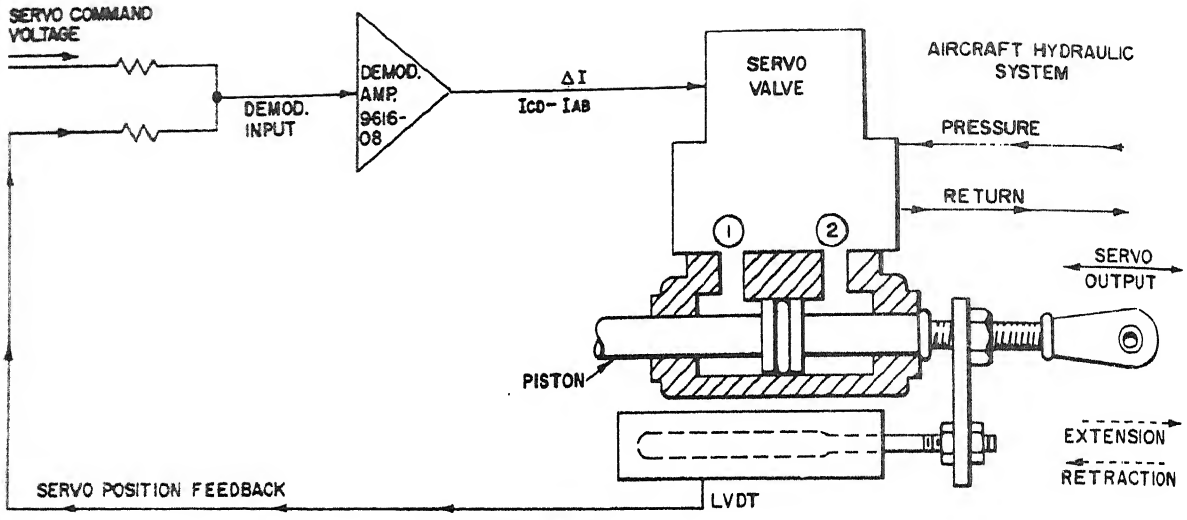


Electro-Hydraulic Servo Valve — Schematic

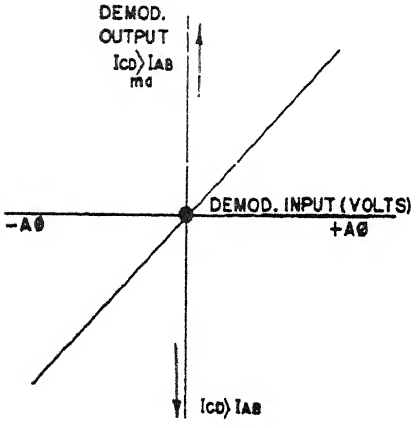


MAX STROKE FOR 5% LINEARITY
INSTALLED MAX STROKE
SENSITIVITY WITH PHASING NETWORK 400 cps EXCITATION @ 6.3 V. 400 cps EXCITATION
QUADRATURE AND HARMONICS AT NULL @ 3.1 V, 400 cps EXCITATION
PRIMARY D-C RESISTANCE
SECONDARY D-C RESISTANCE
EXCITATION CURRENT (@ 3.1V, 400 cps EXCITATION

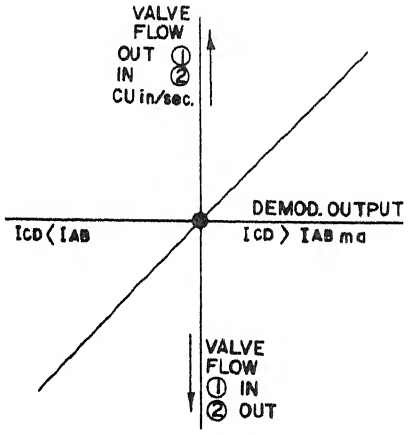
LVDT Line



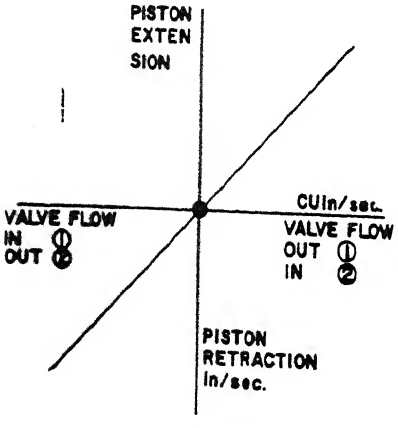
VIEW A



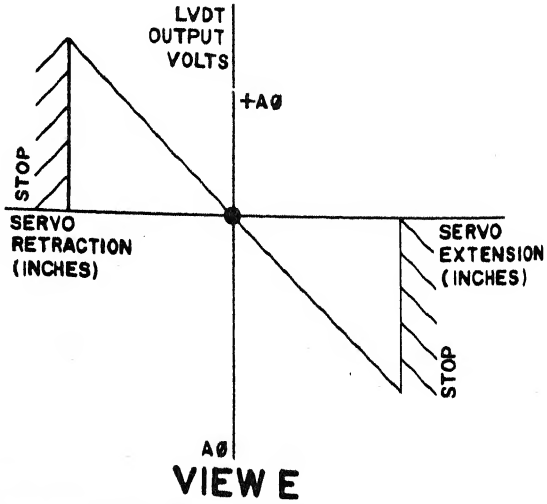
VIEW B



VIEW C

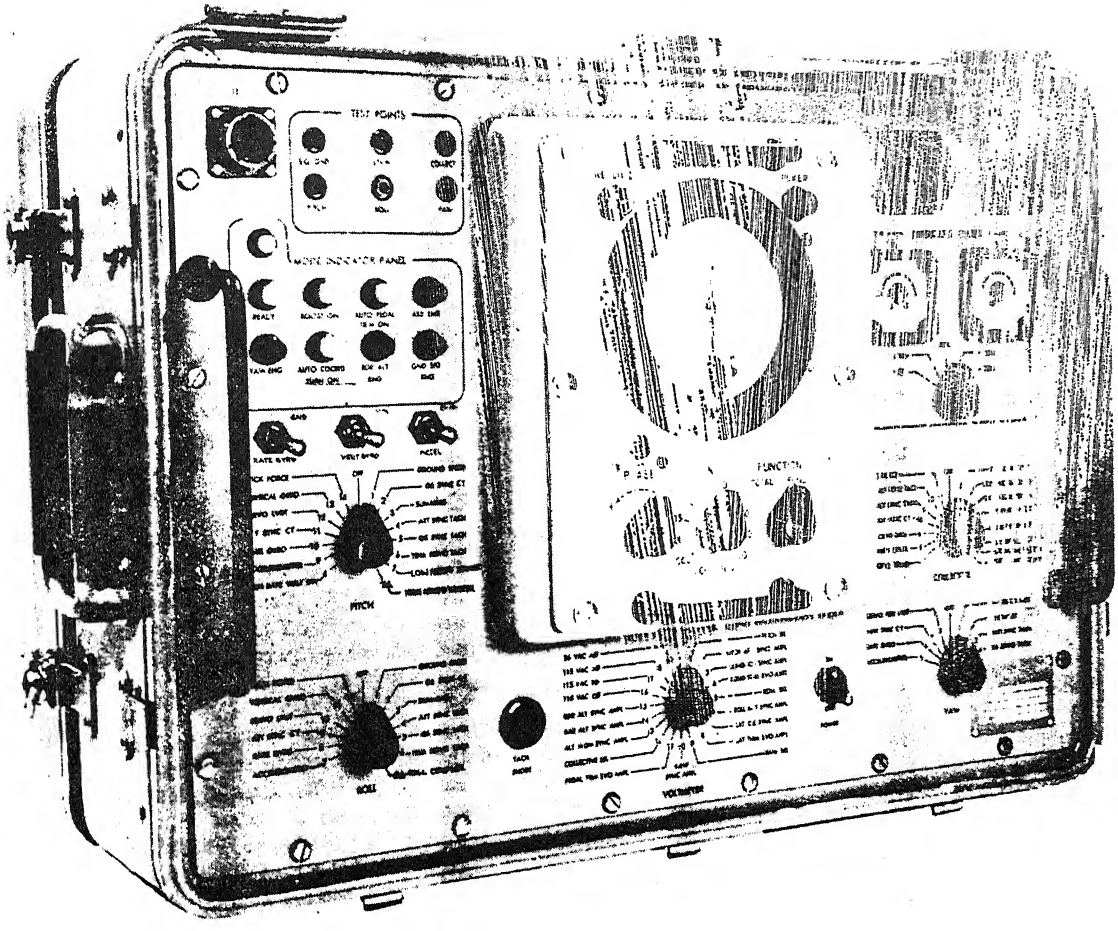


VIEW D

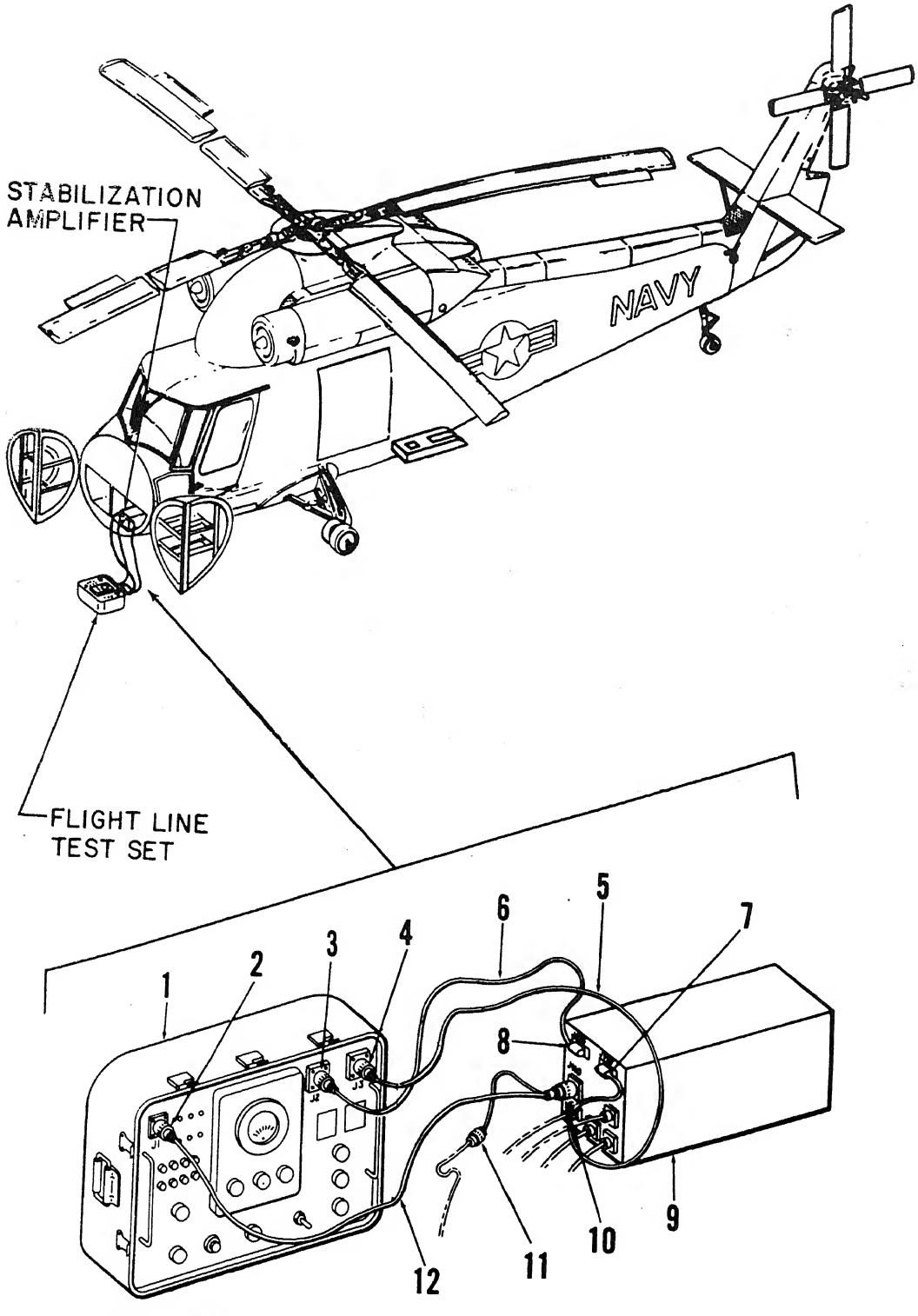


VIEW E

Principles of Operation – ASE Electro-Hydraulic Servo Valve

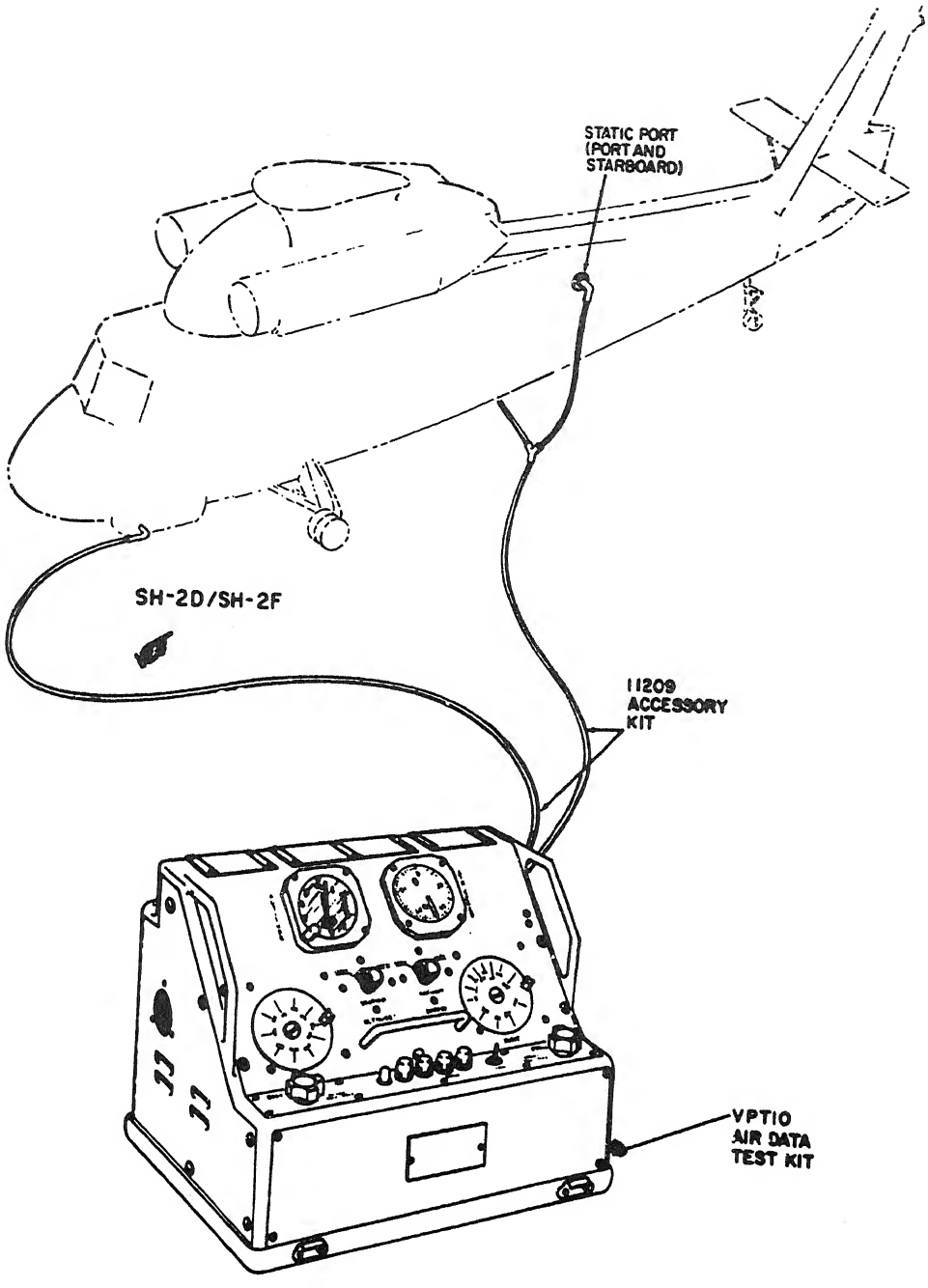


Flight Line Test Set

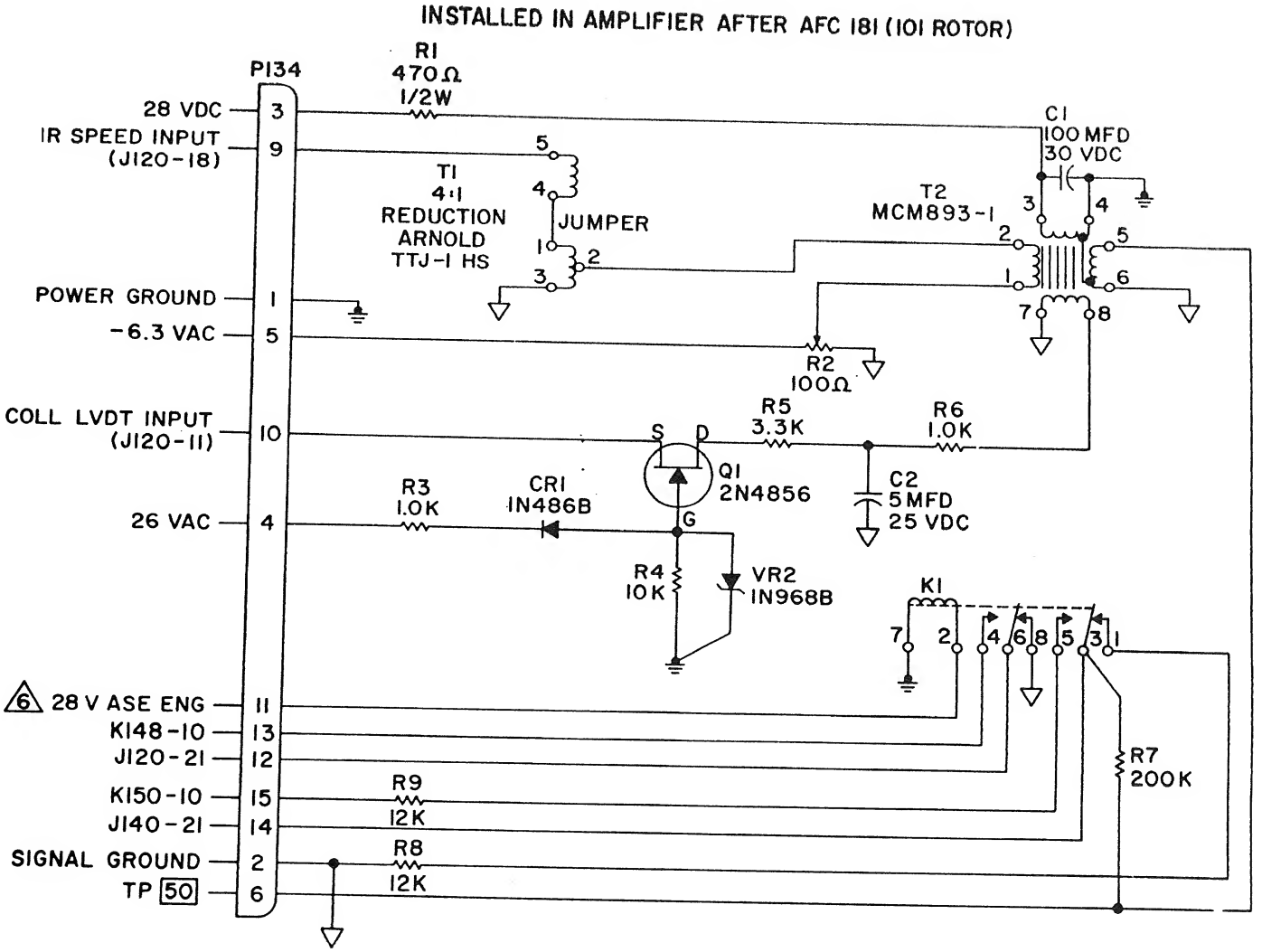


1. Flight line test set
2. Connector, P1
3. Connector, P2
4. Connector, P3
5. Cable assembly, P/N K604605-103
6. Cable assembly, P/N K604605-101
7. Connector, P157
8. Connector, P156
9. Stabilization amplifier
10. Connector, P110B
11. Connector, P110A
12. Cable assembly, P/N K604605-105

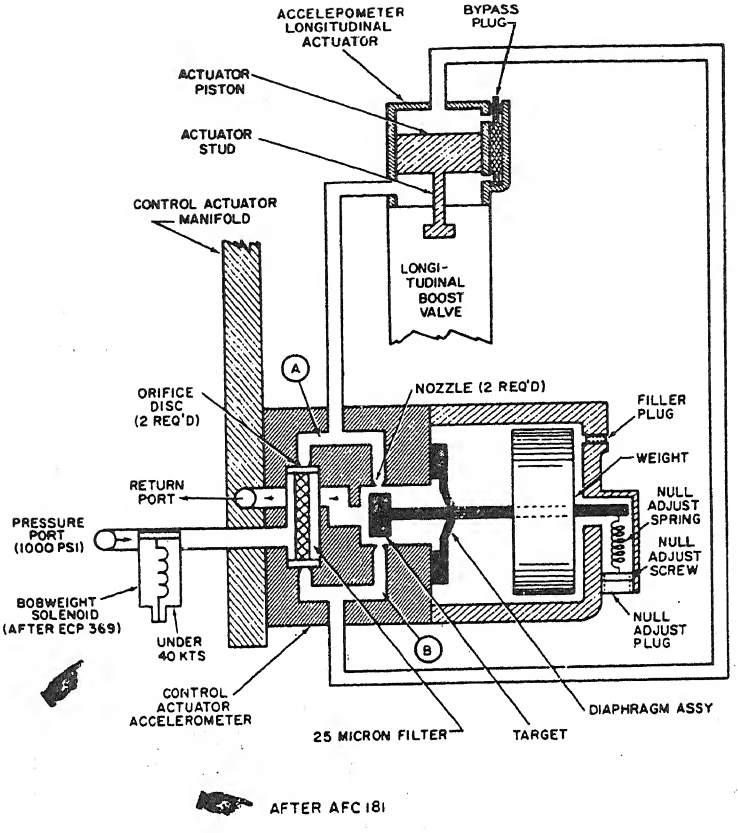
Flight Line Test Set Connected to Amplifier



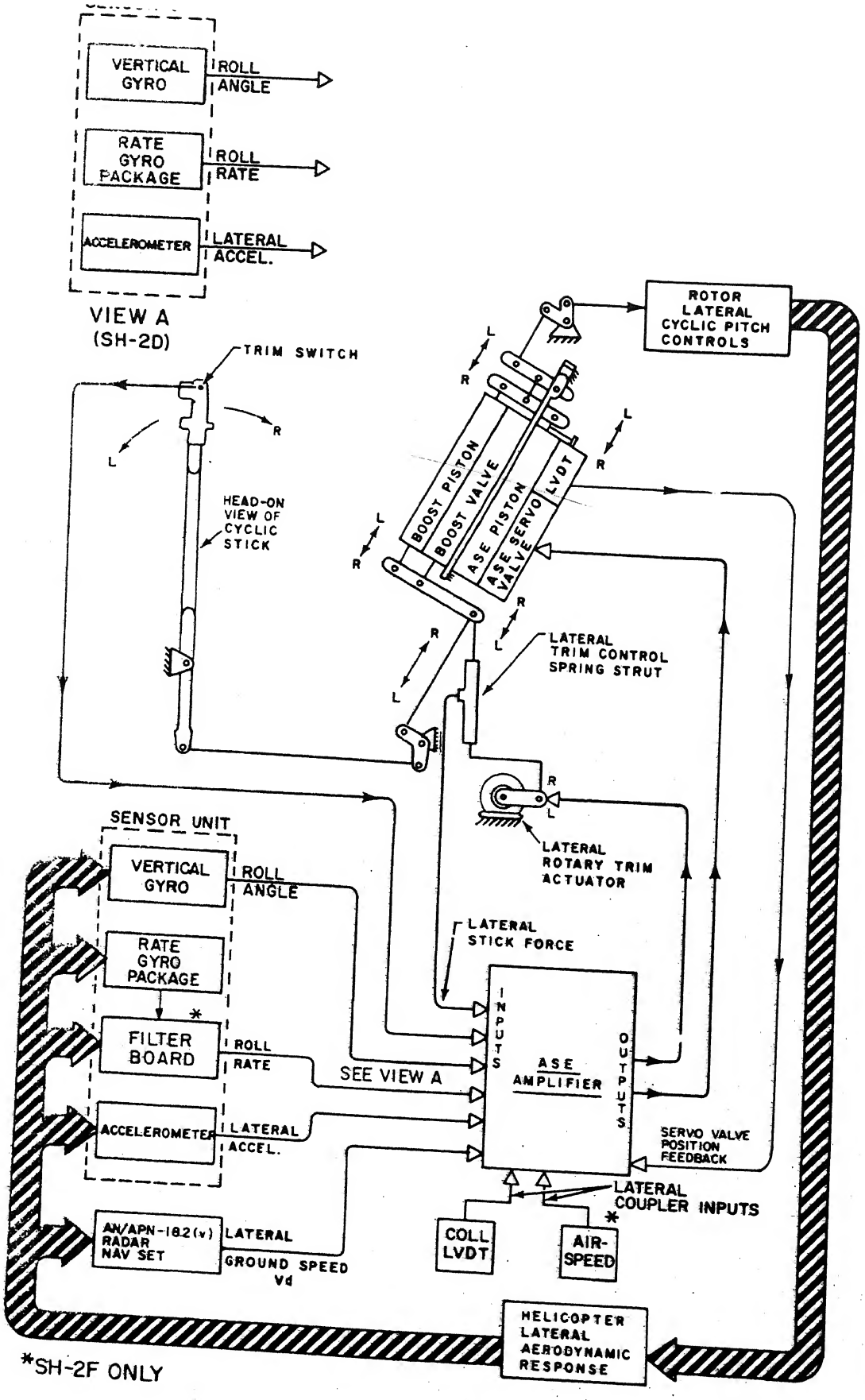
Air Data Test Set



Lateral Collective Coupler Network J134

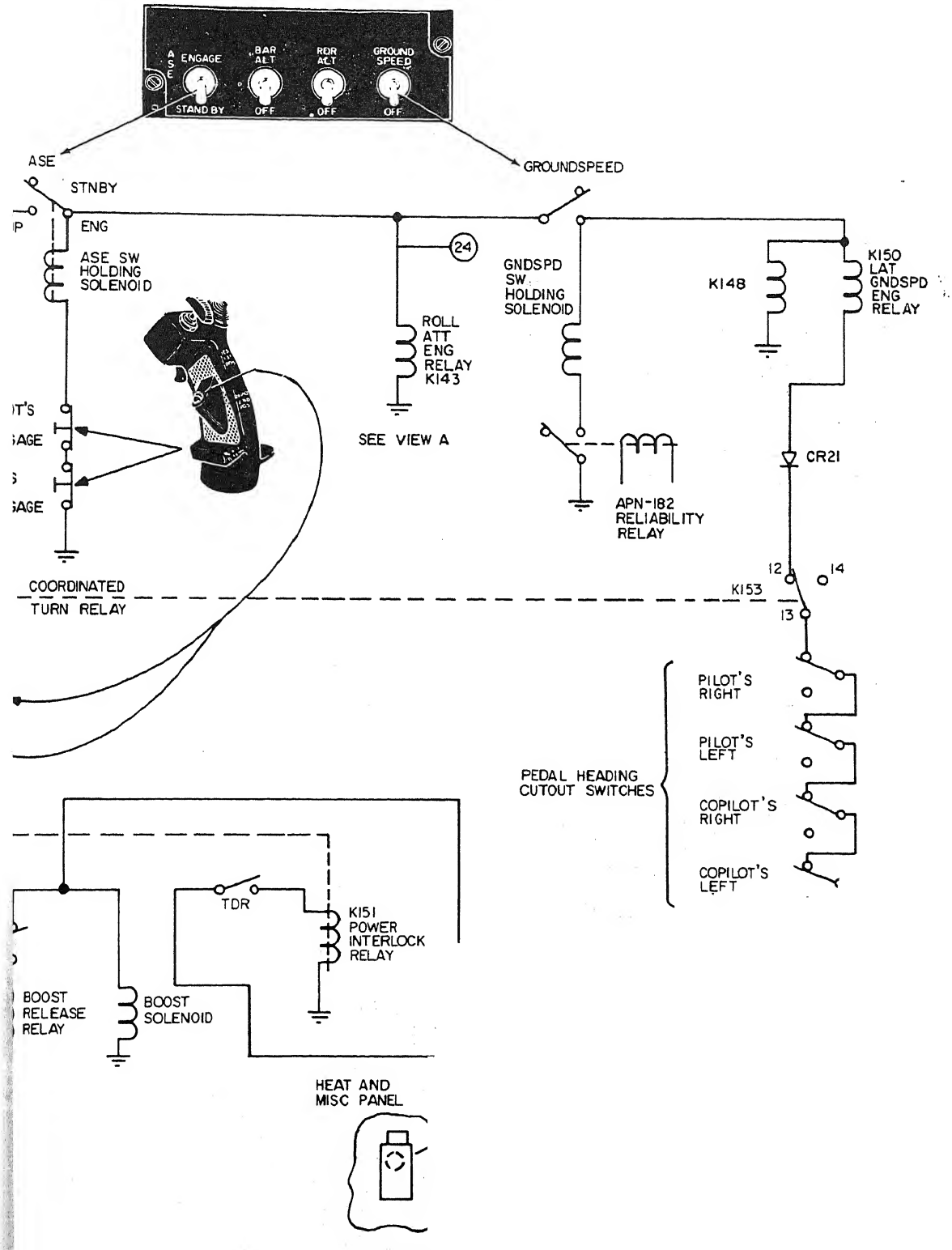


Control Actuator Accelerometer and Bobweight - Flow Diagram



Lateral Control Schematic and Roll Axis Block Diagram

ROLL CHANNEL CONTROL SWITCHING DIAGRAM



I TITLE: OPERATIONAL "QUICK-CHECK" OF THE ROLL CHANNEL OF ASE

II TOOLS, EQUIPMENT AND MATERIAL:

1. HH-2D Trainer, Section 1, Part No. K603903-5
2. Power Cart, Part No. K603923-1
3. ASE flight line test set, Part No. K604605-6
4. ASE Manual Maintenance Instructions, NA 01-260HCA-2-5
5. AE toolbox

FOR TRAINING PURPOSES ONLY

NOTE: To be used in conjunction with latest MMI test procedures.

III PROCEDURE:

1. ASE in "Standby and Warmup" mode

   a. Run trim left and right. Stick should follow.
   b. Monitoring TP 39 of J157 on .3 volt range, watch for bus voltage increase and decrease to zero while tilting sensor unit to the right 10° and holding. (Checks roll attitude sync loop)
   c. Relevel sensor unit. (Check that lateral coupler relay prevents M1 and M2 movement while moving sensor)

2. ASE engaged mode (ASE engage light ON, meters nulled)

   a. Tilt sensor unit to the left approximately 10° and hold: M1 increase and M2 decrease, and hold this way. (Lateral coupler K1 now engaged)

      NOTE: This checks roll attitude mode with ASE engaged

   b. Leave the demodulator meters split

3. Groundspeed engaged mode

   a. Engage G/S switch and the meters should null out (Checks groundspeed sync loop)
   b. Tilt sensor unit to right and M2 should increase as M1 decreases, and hold this way.
   c. With the meters split, disengage groundspeed; meters should null out. (Checks roll attitude sync loop with G/S engaged)
   d. Disengage ASE and continue

4. Checking servo valve, ASE piston movement and LVDT (requires hydraulics)

a. Apply hydraulic power
b. Watching demodulator meters, engage ASE; the meters should not split. If meters do split
(1) Check LVDT adjustment
(2) Ensure no output from J134 present
(3) Check servo valve adjustment

c. With nulled meters, tilting sensor unit should make ASE piston move and be immediately recentered by LVDT output.

I TITLE: Operational Check of Roll Channel

II Tools, Equipment and Material
1. SH-2F flight control panel, section 1, K603903-5
2. Power cart, K603023-3
3. ASE flight line test set, K604605-6
4. Manual Maintenance Instruction, NAVAIR 01-260HCO-2-5

III PROCEDURE:
1. Flight line test set hook-up
a. Insure that the ASE flight line test set is connected as required by paragraph 1-62, 1 through 2n
2. System check
a. Refer to table 1-1, page 1-28, and complete test 1-7

CAUTION

Always insure that voltmeter range is at 300 during all switch changes, then reduce to proper range for voltage readings

NOTE

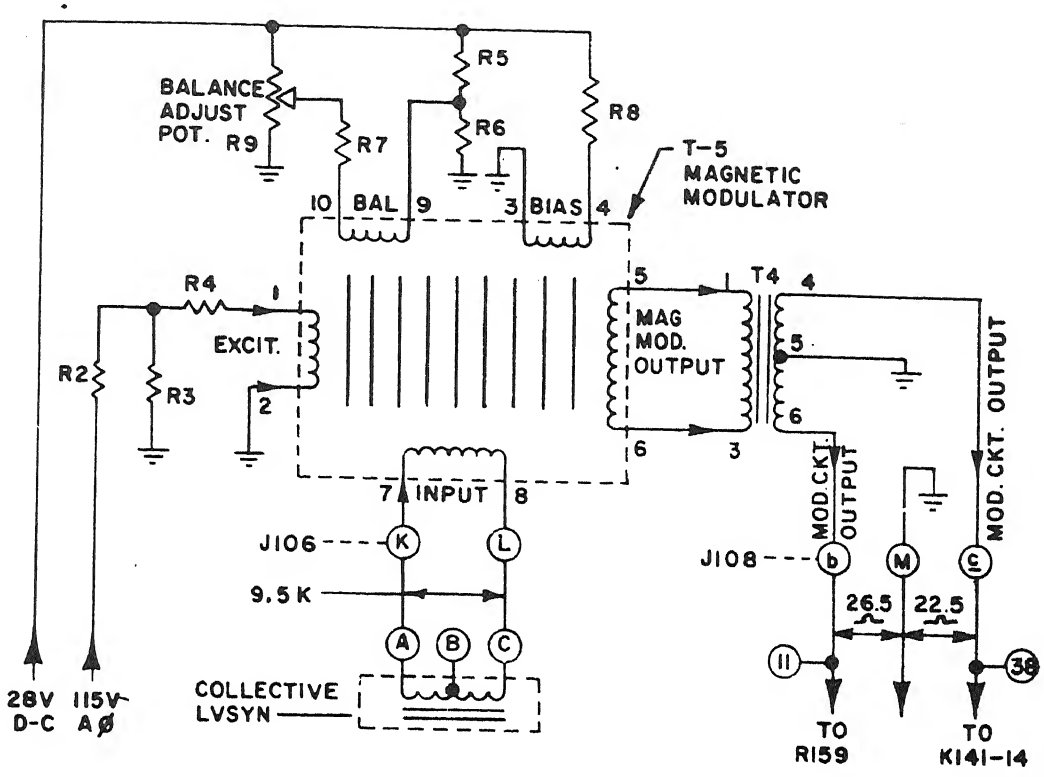
Allow approximately 30MV deviation due to system noise. Plus and minus readings may NOT have equal values due to noise. Variance in reading up to 50% are acceptable

b. Refer to paragraph 1-67, page 1-33, and comply

NOTE

The column labeled "checking for" can be used to pinpoint location of signal under test on the ASE system schematic, figure 1-12, page 1-26.

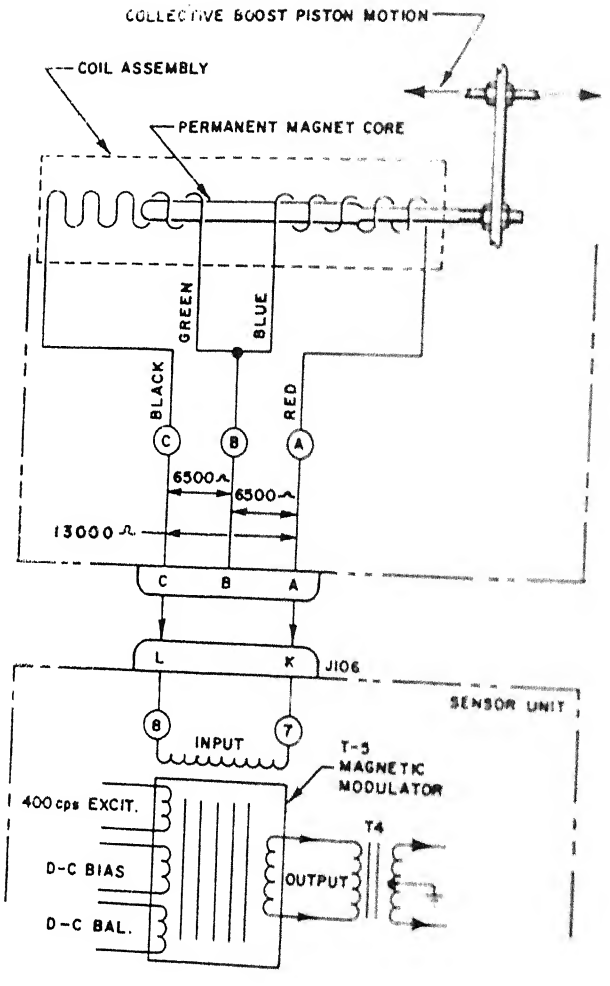
c. Secure the test set and notify the instruction that you have completed the tests.



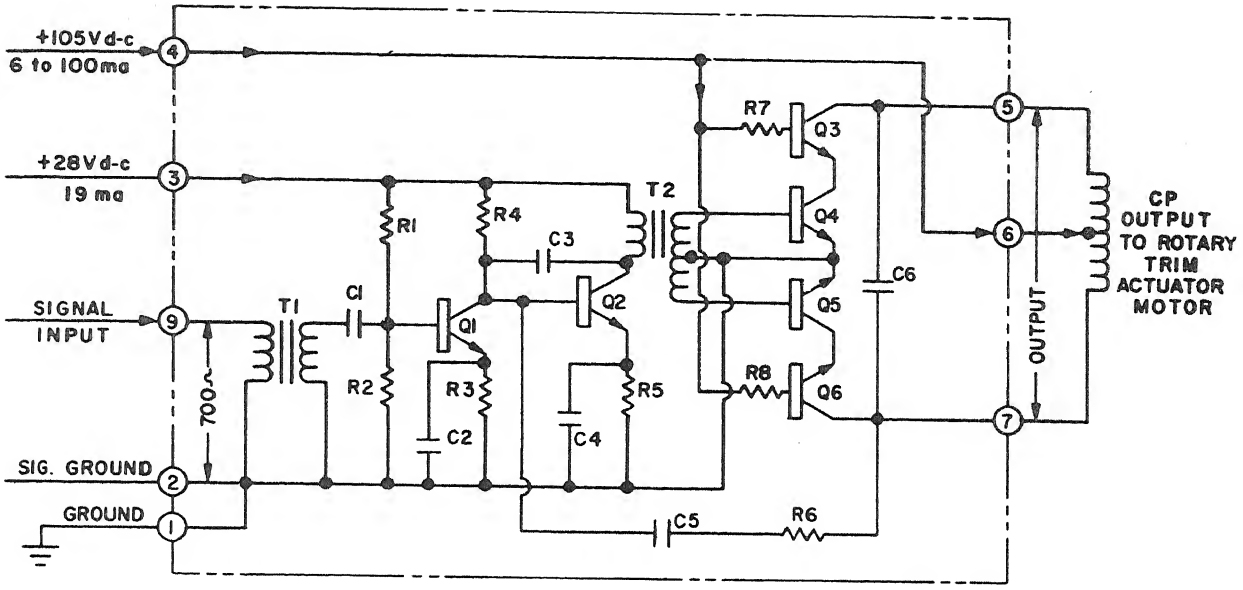
Magnetic Modulator Circuit

MODULATOR CIRCUIT CHARACTERISTICS

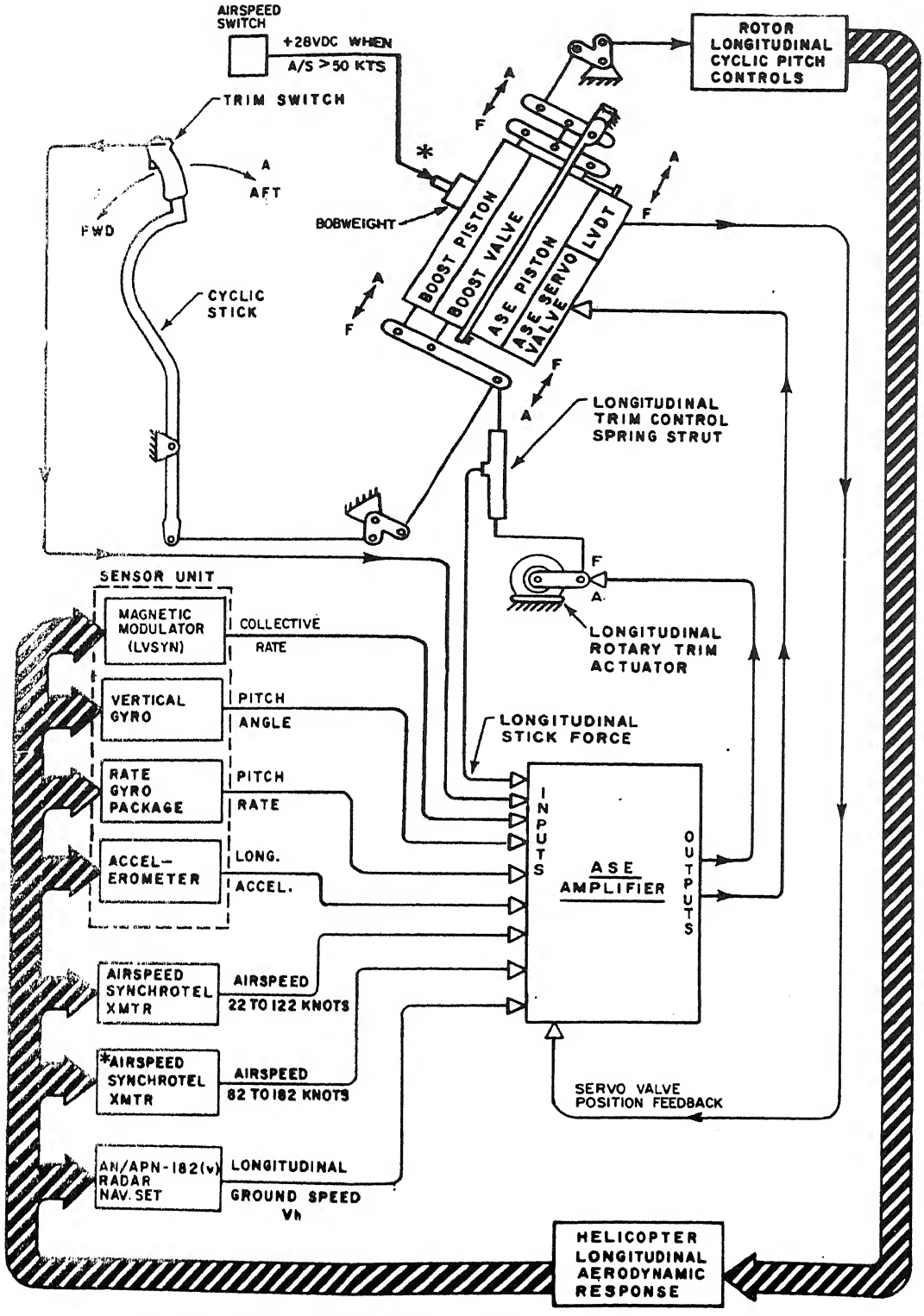
Sensitivity	0.027V rms (M to b to c)per microampere dc input
Null	0.020\
Output phasing	with ir to L: Out Out
	with in to L: Out Out
Maximum input	± 60 m



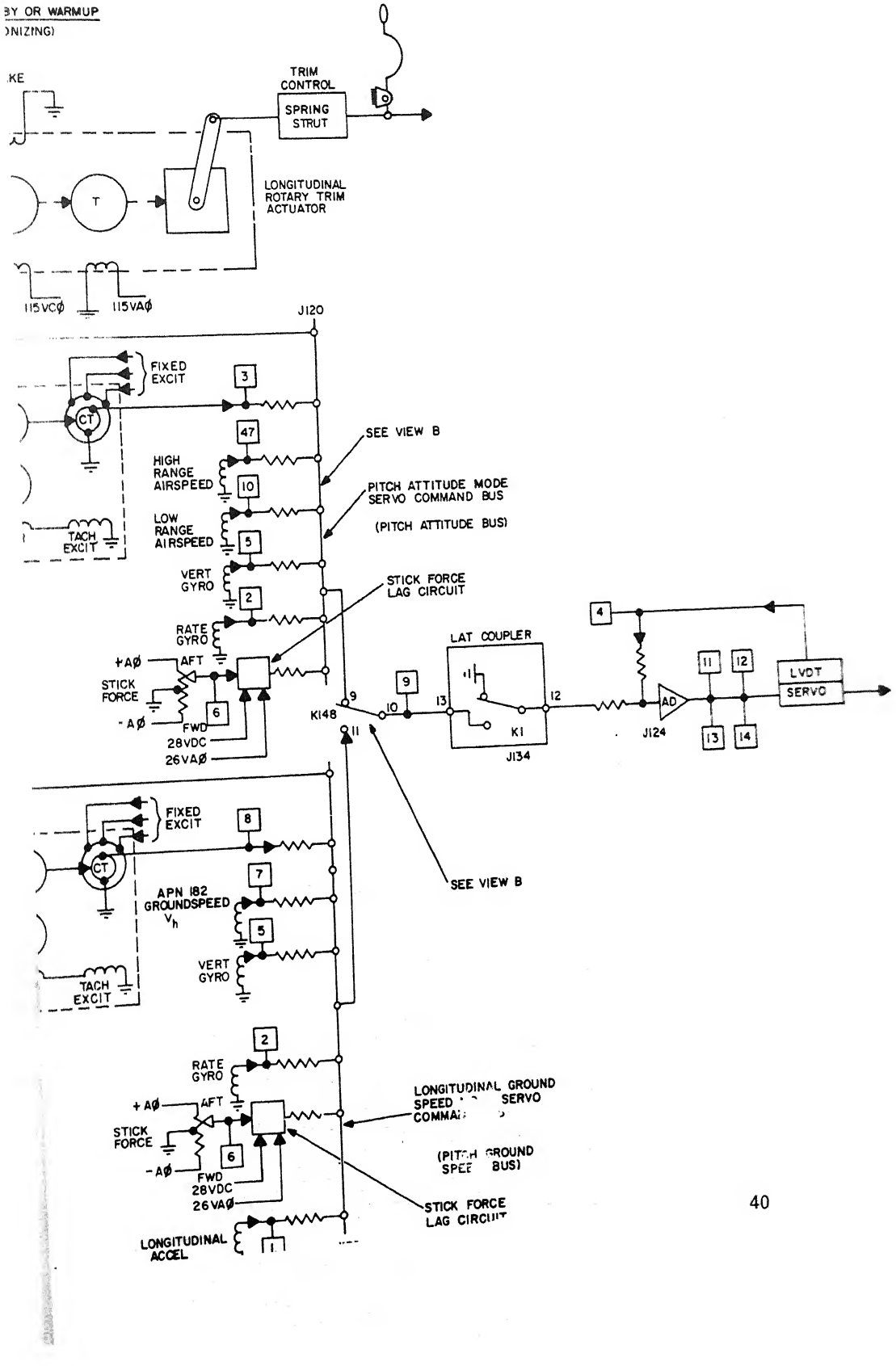
LVsyn Transducer — Schematic



Motor Drive Amplifier



Longitudinal Control Schematic and Pitch Axis ASE Block Diagram


BY OR WARMUP
)NIZING)
.KE
TRIM CONTROL
SPRING STRUT
LONGITUDINAL ROTARY TRIM ACTUATOR
T
115VCØ
115VAØ
J120
FIXED EXCIT
CT
TACH EXCIT
HIGH RANGE AIRSPEED
LOW RANGE AIRSPEED
VERT GYRO
RATE GYRO
STICK FORCE
+AØ
-AØ
AFT
FWD
28VDC
26VAØ
SEE VIEW B
PITCH ATTITUDE MODE SERVO COMMAND BUS
(PITCH ATTITUDE BUS)
STICK FORCE LAG CIRCUIT
LAT COUPLER
K148
K1
J134
J124
AD
LVDT
SERVO
APN 182 GROUNDSPEED
V_h
LONGITUDINAL GROUND SPEED SERVO COMMAND
(PITCH GROUND SPEED BUS)
LONGITUDINAL ACCEL

I TITLE: Operational Check of the Pitch Channel

II TOOLS, EQUIPMENT AND MATERIAL

1. SH-2F flight control panel, section 1, K603903-5
2. Power Cart, K603923-3
3. ASE flight line test set, K604605-6
4. Manual Maintenance Instruction, NAVAIR 01-260HCO -2-5
5. Air data test set, VPT-10HS11633

III PROCEDURE

1. Flight line test set hook-up

   a. Insure that the ASE flight line test set is connected as required by paragraph 1-62, 1 through Zn

2. System Check

   a. Refer to table 1-1, page 1-28, and complete test 1-7

CAUTION

Always insure that voltmenter range is at 300 during all switch changes, then reduce to proper range for voltmeter readings

NOTE

Allow approximately 30MV deviation due to system noise. Plus and minus readings may NOT have equal values due to noise. Variance in reading up to 50% are acceptable

   b. Connect the VPT-10HS, using the accessory kit, in accordance with instructions.

CAUTION

Insure that lines are conn
serious damage will occ
ASE equipment and instruments

NOTE

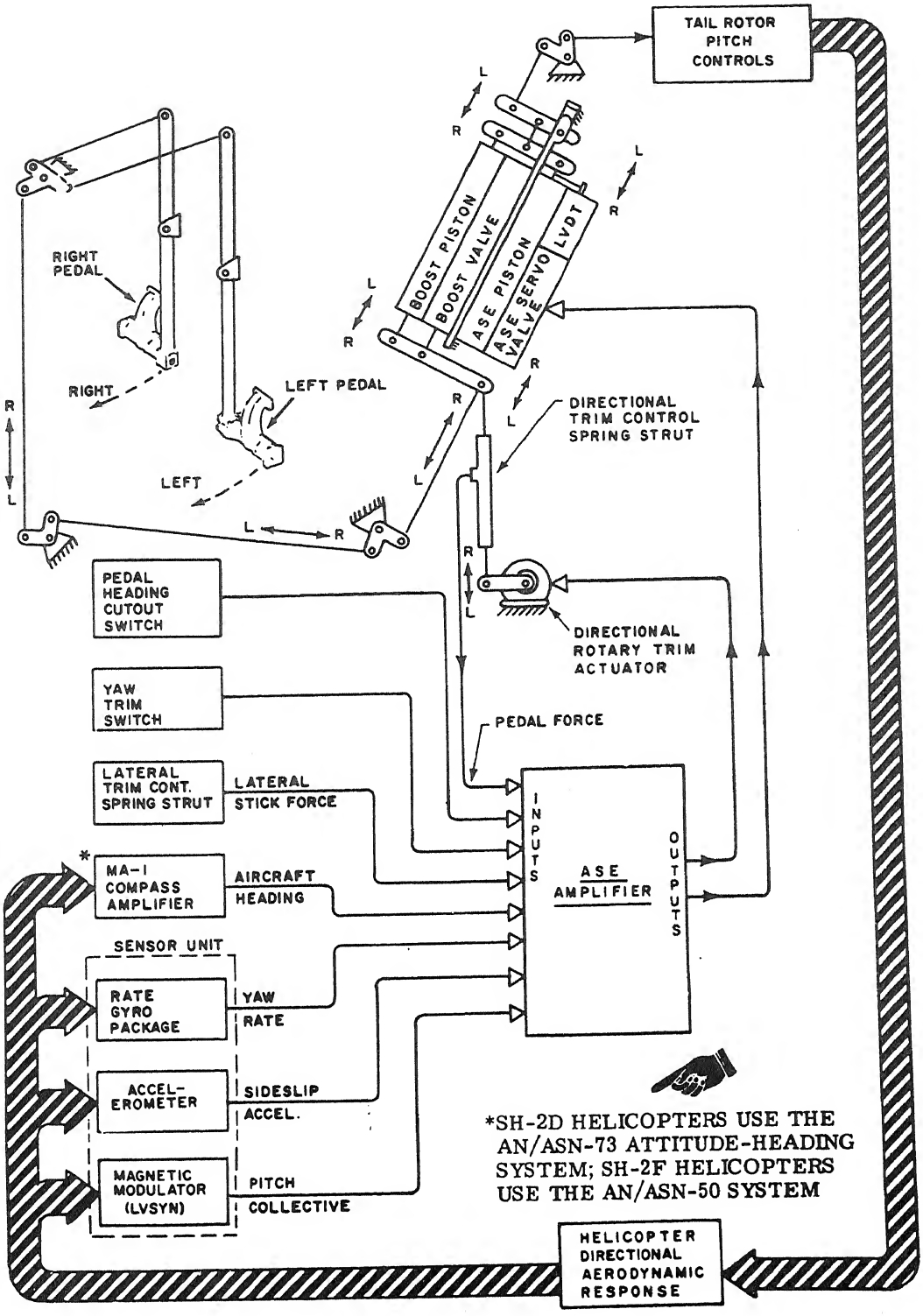
Do not operate VPT-10HS until called for during operational check

   c. Refer to paragraph 1-65, page 1-27, and comply

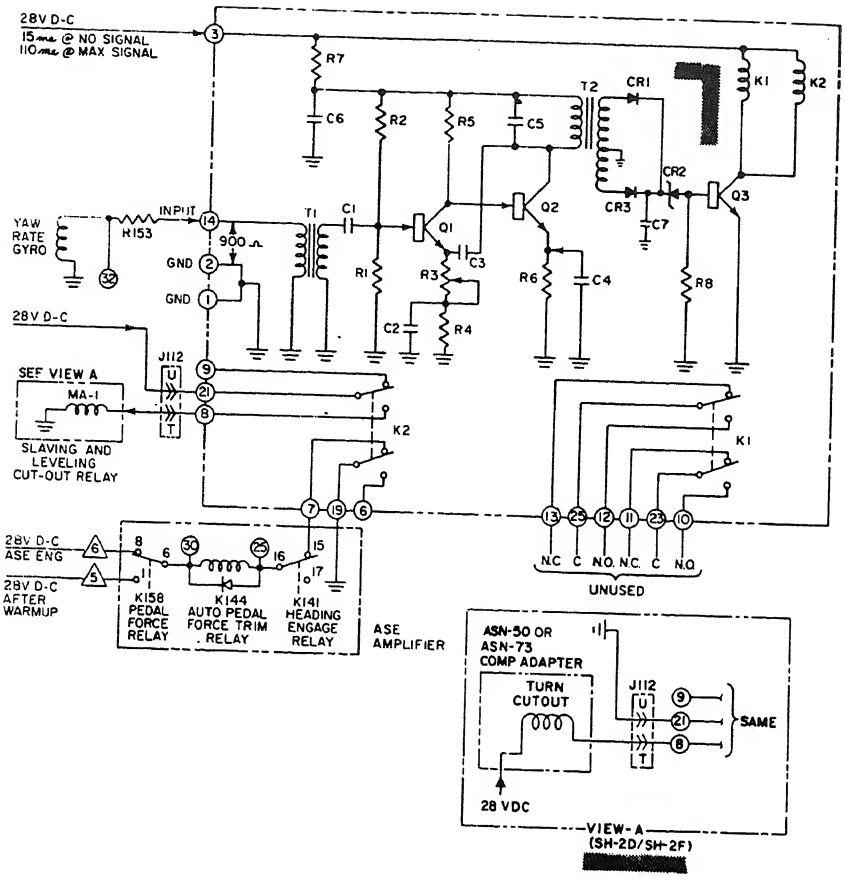
NOTE

The column labeled "checking for" can be used to pinpoint location of signal under test on the ASE system schematic. Figure 1-12, page 1-26.

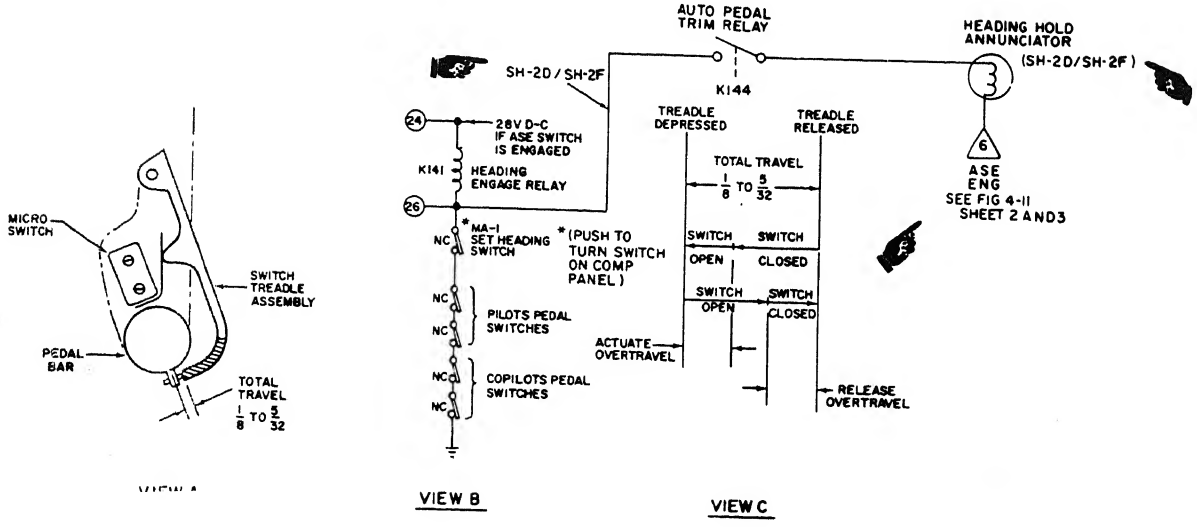
d. Secure the test sets and notify the instructor that you have completed the test.



Directional Control Schematic and Yaw Axis ASE Block Diagram



Relay Driver Amplifier

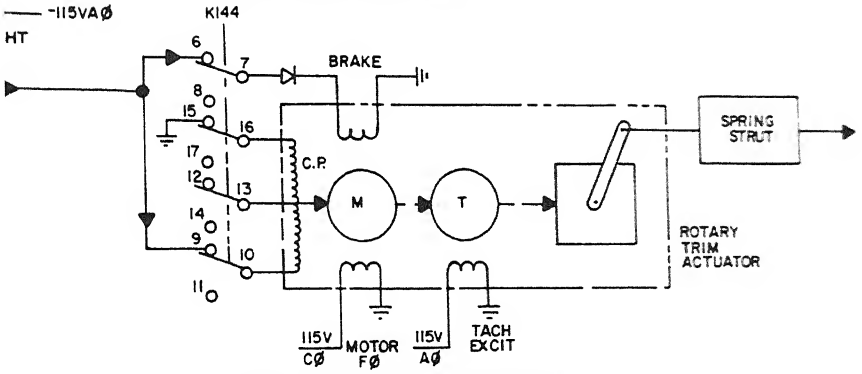


SE AN/ASN-73 ATTITUDE-
2F USES AN/ASN-50 SYSTEM
1. SHEETS 2 AND 3
IT)

and Copilot's Heading Disengage Switches

CK

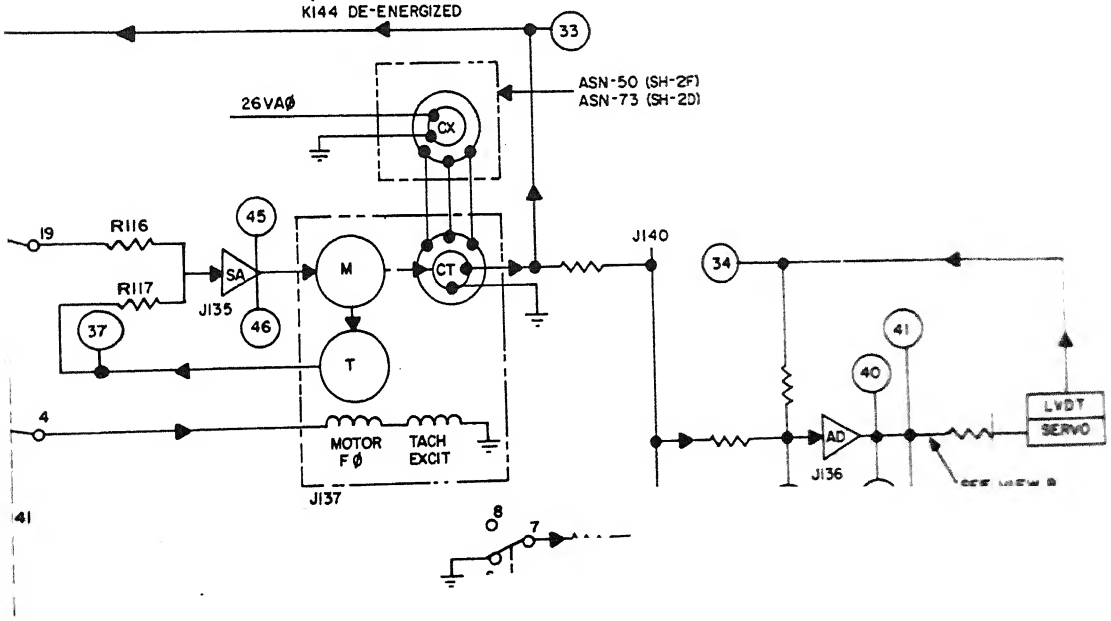
ASE IN WARMUP OR STANDBY



PEDAL TRIM ACTUATOR CONTROL CIRCUIT

(MANUAL MODE)

K144 DE-ENERGIZED



DING HOLD MODE

YNCHRONIZING)

1 UNENERGIZED

I TITLE: OPERATIONAL CHECK OF YAW CHANNEL

II TOOLS, EQUIPMENT AND MATERIALS

1. SH-2F flight control panel section 1, K603003-5
2. Power cart, K603923-3
3. ASE Flight line test set, K604605-6
4. Manual Maintenance Instruction, NAVAIR 01-260HCD-2-5

III PROCEDURE

1. Flight Line Test Set Hook-up

   a. Insure that the ASE flight line test set is connected as required by paragraph 1-62, 7 through 2N

2. System check

   a. Refer to table 1-1, page 1-28, and complete test 1-7

CAUTION

Always insure that voltmeter range is at 300 during all switch changes, then reduce to proper range for voltmeter readings

NOTE

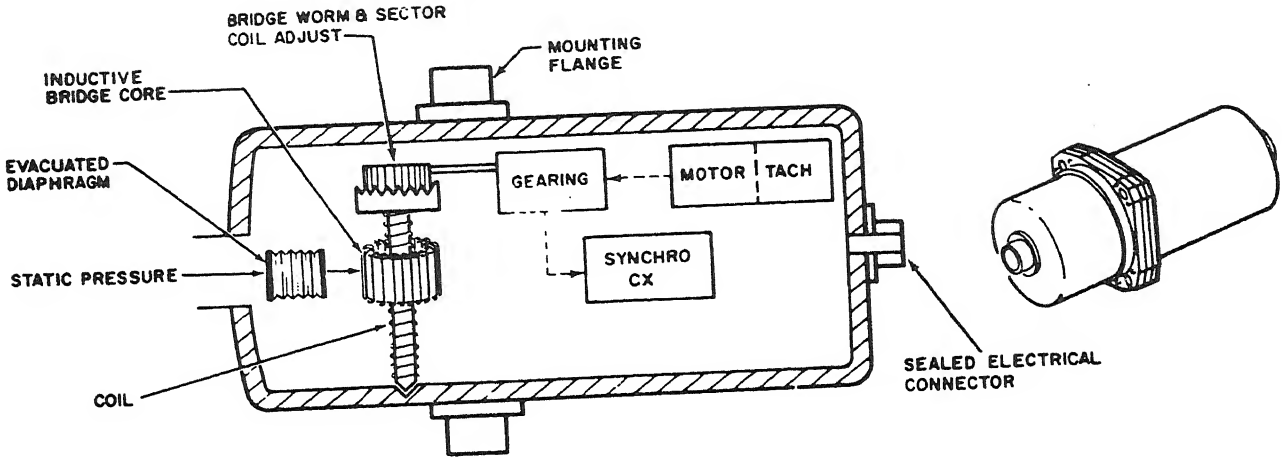
Allow approximately 30 MV deviation due to system noise. Plus and minus readings may NOT have equal values due to noise. Variance in reading up to 50% are acceptable.

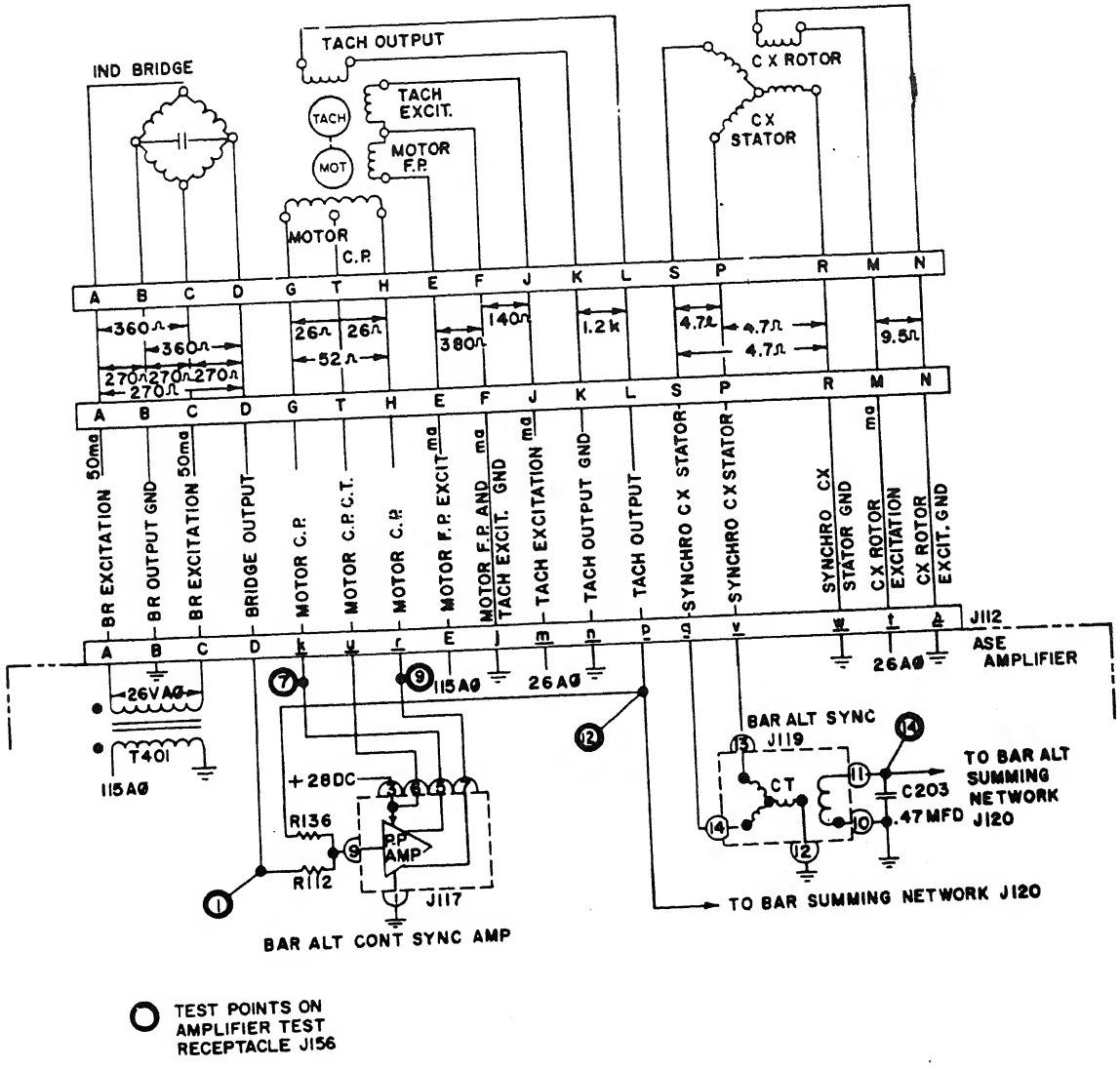
b. Refer to paragraph 1-69, page 1-37, and comply.

NOTE

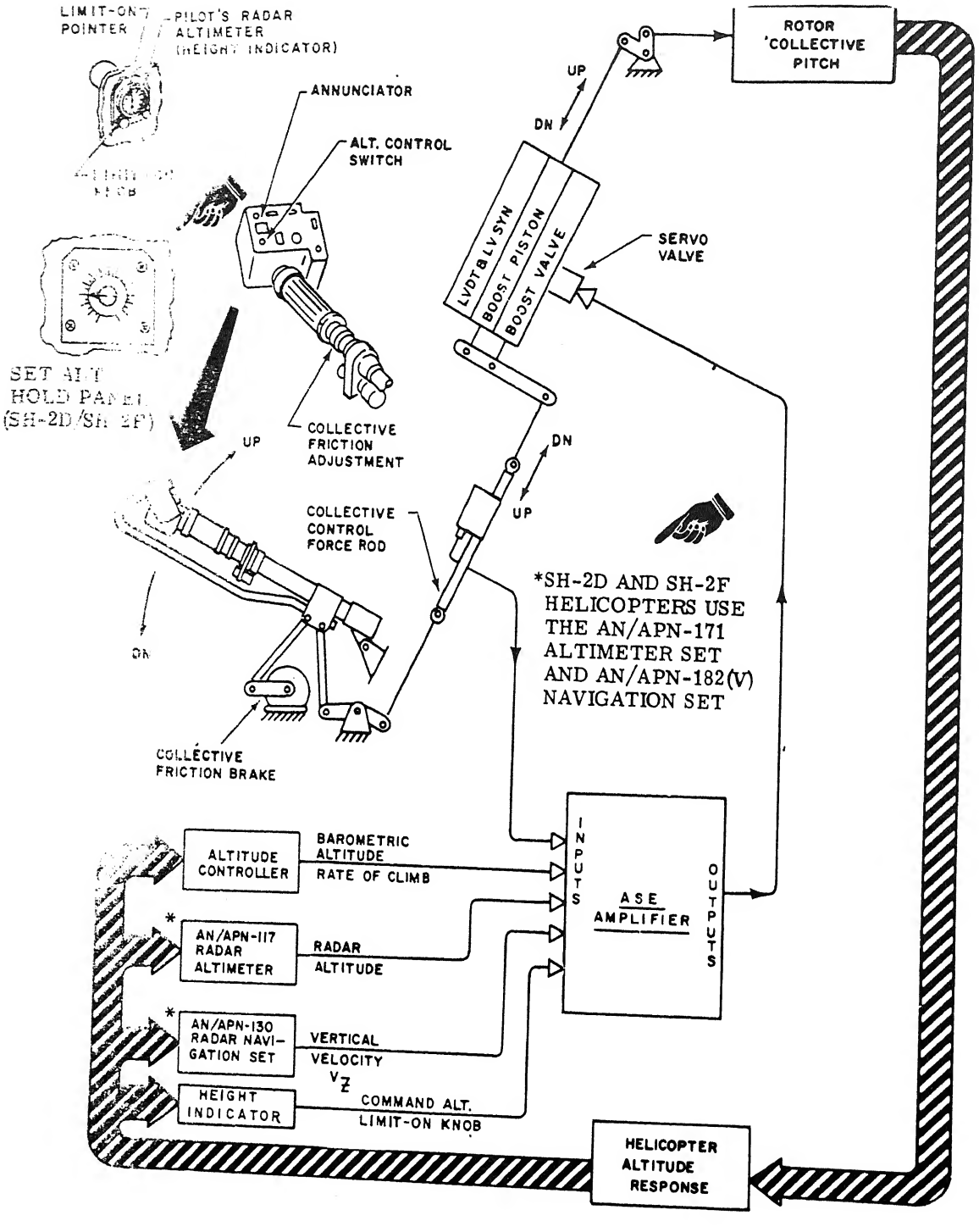
The column labeled "checking i
to pinpoint location of signa
the ASE system schematic, fig

c. Secure the test set and notify the instructor that you have completed the tests.



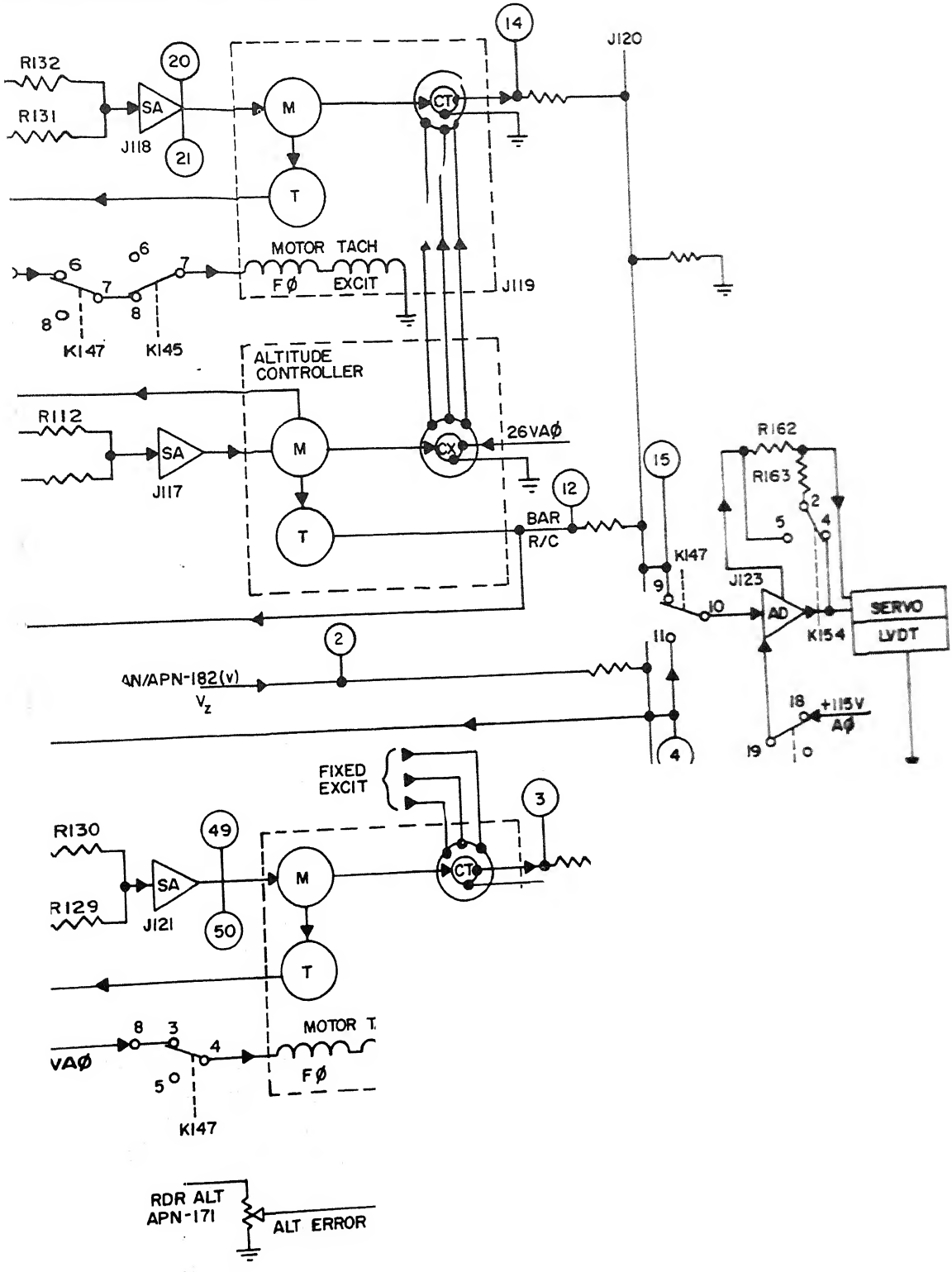


Altitude Controller

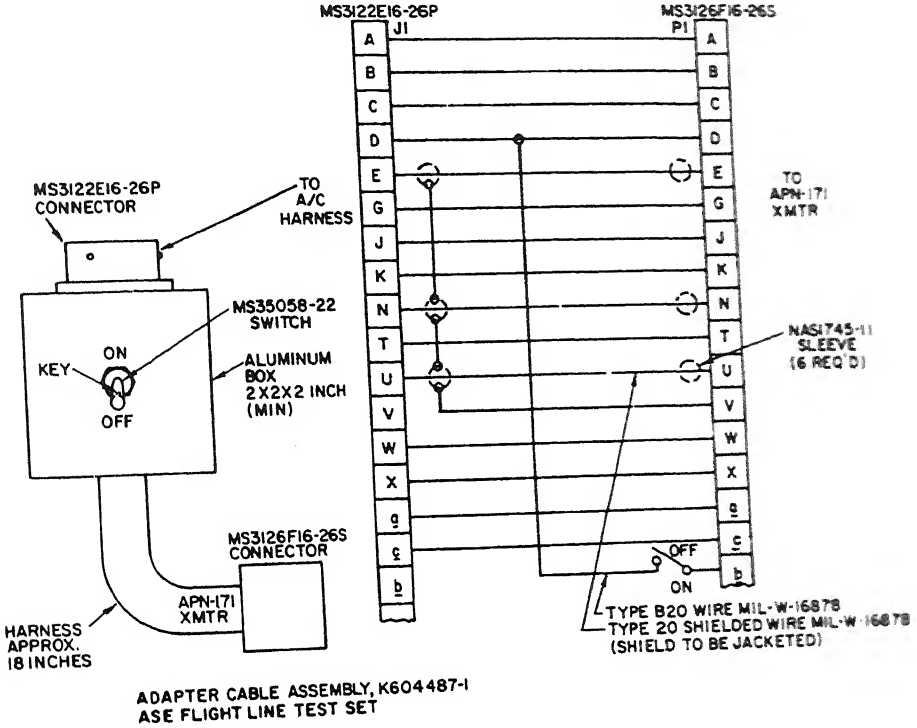


Collective Control Schematic and Altitude Control Block Diagram

ALTITUDE CONTROL MODE ENGAGED



ADAPTER CABLE ASSEMBLY, K604487-1 (ASE Flight Line Test Set). Adapter cable assembly, K604487-1, required for flight line testing of the ASE System in SH-2D/SH-2F helicopters may be locally manufactured



Adapter Cable Assembly, K604487-1

I TITLE: Operational Check of Collective Channel

II TOOLS, EQUIPMENT AND MATERIALS

1. SH-2F Flight control panel, section 1, K603903-5
2. Power cart, K603923-3
3. ASE flight line test set, K603903-5
4. Manual Maintenance Instruction, NAVAIR 01-250HED-2-5
5. Air Data Test set, VPT-10HS11533

III Procedure

1. Flight line test set hook-up

   a. Insure that the ASE flight line test set is connected as required by paragraph 1-62, 1 through 2n

2. System check

   a. Refer to Table 1-1, page 1-28, and complete test 1-7

CAUTION

Always insure that voltmeter range is at 300 during all switch changes, then reduce to proper range for voltmeter readings

NOTE

Allow approximately 30MV deviation due to system noise. Plus and minus readings may NOT have equal values due to noise. Variance in reading up to 50% are acceptable

   b. Connect the VPT-10HS, using the accessory kit, in accordance with instructions.

CAUTION

Insure that lines are connected properly or serious damage will occur to the system trainer ASE equipment and instruments.

NOTE

Do NOT operate VPT-10HS until called for during operational check

   c. Refer to paragraph 1-71, page 1-41, and comply

NOTE

The column labeled "checking for" can be used to pinpoint location of signal under test on the ASE system schematic, figure 1-12, page 1-26.

d. Secure the test set and notify the instructor that you have completed the test.

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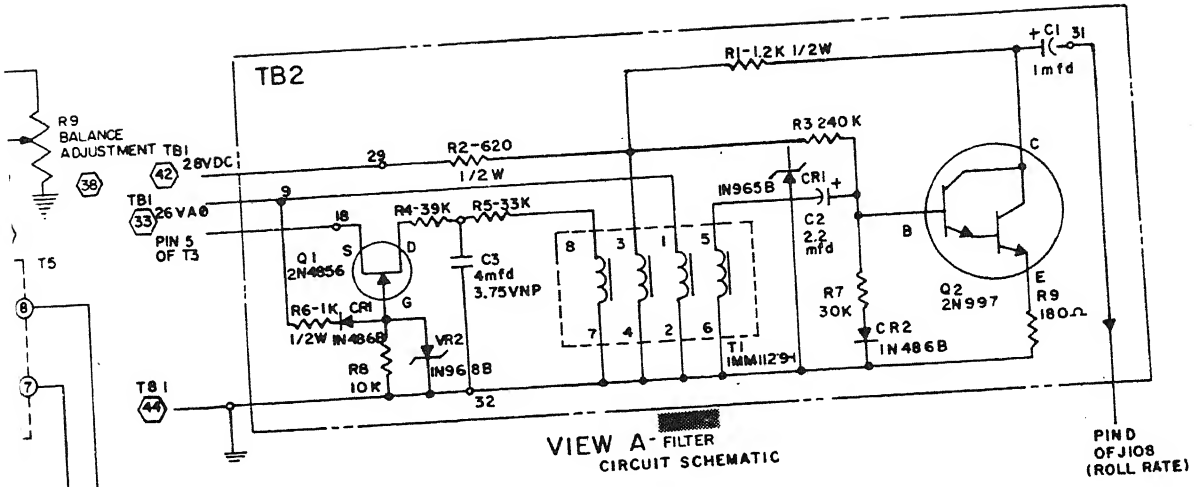
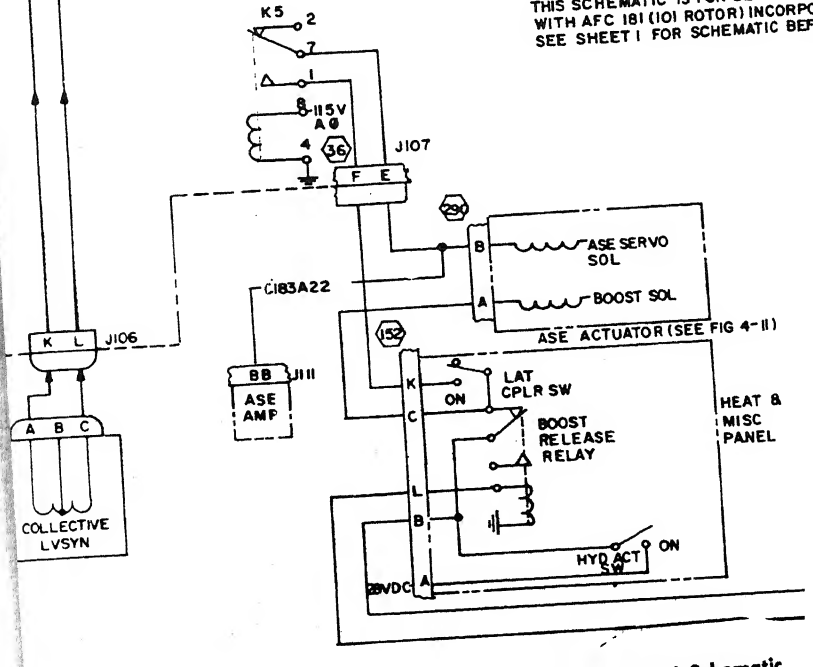
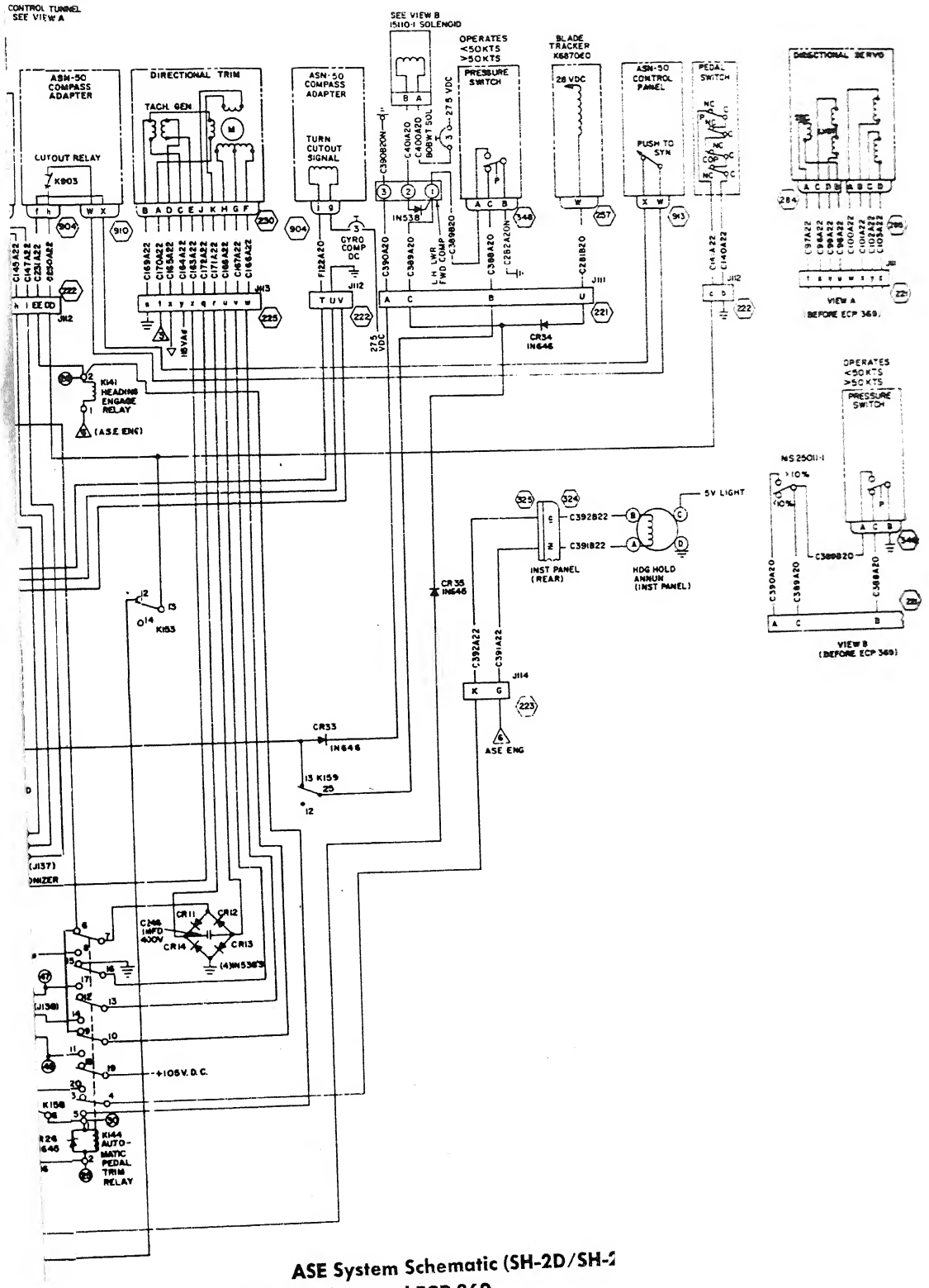


NOTE:

THIS SCHEMATIC IS FOR SENSOR UNITS WITH AFC 181 (101 ROTOR) INCORPORATED. SEE SHEET 1 FOR SCHEMATIC BEFORE AFC 181.



Sensor Unit Schematic



ASE System Schematic (SH-2D/SH-2
After AFC 181 and ECP 369